

# **CITY OF OCEAN SHORES**

## **WEATHERWAX WETLAND AND HABITAT BANK**



**MITIGATION BANK INSTRUMENT**

**NOVEMBER 20, 2015**

**PREPARED BY:**  
**CITY OF OCEAN SHORES AND**  
**ECOLOGICAL LAND SERVICES**  
**LONGVIEW, WA**

**OCEAN SHORES PLANNING DEPARTMENT**  
**IN COORDINATION WITH**  
**DEPARTMENT OF ECOLOGY**  
**ARMY CORP OF ENGINEERS**

**OCEAN SHORES MAYOR:**  
CRYSTAL L. DINGLER

**STAFF:**  
PLANNING DEPARTMENT:  
ALICIA BRIDGES  
KARLA ROBERTS  
FINANCE DEPARTMENT:  
STEVE ENSLEY  
MBI REVIEW COMMITTEE:  
MARLENE PENRY  
JERRY MERGLER

**INTERAGENCY REVIEW TEAM (IRT):**  
KATE THOMPSON, DEPT OF ECOLOGY  
RICK MRAZ, DEPT OF ECOLOGY  
GAIL TERZI, ARMY CORP OF ENGINEERS



## MITIGATION BANKING INSTRUMENT

### Weatherwax Wetland and Habitat Bank

This Mitigation Banking Instrument (hereinafter, the “Instrument”) regarding the establishment, use, operation, and maintenance of the Weatherwax Wetland and Habitat Bank (hereinafter, the “Bank”) is made and entered into by and among the City of Ocean Shores (hereinafter, the “Sponsor”), the U.S. Army Corps of Engineers (hereinafter, the “Corps”), and the Washington State Department of Ecology (hereinafter, “Ecology”) (hereinafter, collectively, the “Parties”) with reference to the following:

#### I. PREAMBLE

**A. Purpose.** The purpose of this Instrument is to specify responsibilities for the establishment, use, operation, and maintenance of the Bank. It consists of this “Basic Agreement” establishing the central obligations assumed and consideration provided by each Party, as well as Appendices (hereinafter, the “Appendices”) that establish the detailed Bank implementation plan, including site-specific conditions, standards, and procedural requirements applicable to the Bank. The terms and provisions of the Appendices are incorporated into the Instrument. The Bank will provide compensatory mitigation for unavoidable impacts to Waters of the United States and waters of the State, including wetlands, aquatic habitat, and to other natural resources that result from activities authorized by Federal, State, and local authorities, when use of the Bank has been specifically approved by the appropriate regulatory agencies.

**B. Location and Ownership of Parcel.** Whereas, the Sponsor owns approximately 121.86 acres of land located in the City of Ocean Shores, Grays Harbor County, Washington (**Figure A-1, Vicinity Map** in Appendix A). All real property to be included within the Bank site area (Tax parcels **617121121000** and **617121011003**), is more completely described in the legal description attached as **Exhibit A** to this Instrument.

**C. Project Description.** Whereas, the Sponsor has expressed intent to preserve and enhance 121.86 acres of aquatic and associated upland habitat on the Bank site in accordance with the provisions of this Instrument, and to then maintain the Bank in accordance with the provisions of this Instrument. The Bank is projected to, among other purposes, preserve 46.11 acres of wetland mosaic, 32.60 acres of old-growth/mature forest (west property), 7.16 acres of mature forest preservation (east property), and 11.07 acres of lacustrine fringe, and enhance 6.81 acres of upland area (see Table 1 below, Appendix A and Appendix B). The two parcels owned by the City of Ocean Shores are located in the south quarter of Section 2 and the north quarter of Section 11, in Township 17 North, Range 12 West of the Willamette Meridian, Grays Harbor County, Washington, and total 121.86 acres (**Figure A-2, Site Survey**). The Bank site encompasses areas that shall not generate Bank credits, consisting of a power line easement totaling 2.45 acres and the 15.66 acre portion of Duck Lake that falls within the Bank site boundaries. The 100-foot buffer widths around the perimeter of the site are based on current and anticipated land-use intensities on adjacent properties and the risk of impacts to the Bank from adjacent activities and total 19.37 acres. After considering the non-credit-generating buffers as discussed above, and excluding 15.66 acres of Duck Lake and the 2.45 acre power line easement area, the available area for credit

generation is 84.38 acres (See Table 1: Proposed Bank Activities and Figure A-3, Mitigation Area Site Map).

**Table 1: Proposed Bank Activities**

<b>Bank Activities/Areas</b>	<b>Full Bank Area (acres)</b>	<b>Buffers (acres)</b>	<b>Credit Generating (acres)</b>
Wetland Mosaic Preservation	46.11	11.06	35.05
Old-Growth/Mature Preservation	32.60	5.42	27.18
Mature Forest Preservation	7.16	1.04	6.12
Lacustrine Wetland Fringe Preservation	11.07	0.73	10.34
Upland Enhancement	6.81	1.12	5.69
Powerline Easement	2.45	N/A	0.00
Duck Lake	15.66	N/A	0.00
<b>Total</b>	<b>121.86</b>	<b>19.37</b>	<b>84.38</b>

**D. Bank Overview.** Currents, waves, and wind have swept sand north from the Columbia River mouth for over five thousand years resulting in the buildup of spits/peninsulas, comprised of beaches and linear dunes, along the southwest Washington coast. The Ocean Shores peninsula is the most northern of the spits/peninsulas along the southwest Washington coast. The Ocean Shores peninsula is situated in a landscape comprised of an accreting sand beach on the western side, along the Pacific Ocean, an eroded inland estuary (Grays Harbor Bay) to the east, and the confluence of Grays Harbor Bay and the Pacific Ocean to the south. Historically the peninsula was narrower than it is today. When jetties were built in the early 1900s at the southern point of the peninsula to improve navigation, accelerated accretion occurred, particularly along the western side along the Pacific Ocean. When the City of Ocean Shores (Ocean Shores) was first developed in the 1960's, the majority of the city was built on relatively recent accreted land.

The proposed Bank site, which includes a portion of Duck Lake, is roughly located within the middle of the Ocean Shores peninsula. Duck Lake is a component of an approximately six mile-long north-south orientated swale between historic dunal formations that contains a series of lakes and wetlands. Historically, Duck Lake was likely a shallow interdunal lake that was part of a larger interdunal wetland system that occurred along the geologically older eastern portion of the peninsula. During the development of Ocean Shores, Duck Lake was dredged and enlarged, and a system of drainage canals was developed west of the lake. However, the majority of the northern lakes and wetlands within the approximately six mile-long north-south orientated swale remain relatively intact.

Duck Lake, the canal system, and other waterways within the City of Ocean Shores function as groundwater and surface water discharge areas that eventually discharge to Grays Harbor Bay through an overflow weir at the south-eastern tip of the peninsula. Duck Lake is considered a Category 4C impaired water body by the Washington State Department of Ecology (WDOE) due to the presence of the invasive exotic aquatic species Brazilian elodea (*Egeria densa*), and Eurasian water-milfoil (*Myriophyllum spicatum*) (WDOE 2012). Grays Harbor (Bay) is a 303d listed waterbody with a current WDOE total maximum daily load (TDML) in place to address water

quality-issues stemming from dioxin and fecal coliform bacteria (WDOE 2012; WDOE 2011). Due to a combination of road and drainage projects, as well as the presence of numerous canals, the freshwater wetlands, and lakes located within the Ocean Shores peninsula are likely hydrologically interconnected. According to Hruby, all wetlands in western Washington are assumed to be linked via ground water (Hruby *et al.* 1999).

The proposed Bank site is comprised of historic dunal formations to the west and east, with a segment of the six mile-long north-south orientated swale, where Duck Lake occurs, in the central portion of the site. The site's upper elevations range from approximately 20 to 25 feet above mean sea level, with the lowest site elevations occurring within the portion of the site that contains Duck Lake. The crest of the most western historic traverse dune, indicative of a possible past shoreline, runs through the western portion of the Bank site. Mosaics of closed, depressional Category I Palustrine wetlands and uplands (totaling 46.11-acres inclusive of the 100-foot buffer) occur within the lower elevation areas west of the crest of the most western historic traverse dune. Category II Lacustrine wetlands (totaling 11.07-acres inclusive of the 100-foot buffer) fringe the Bank site areas adjacent to Duck Lake (**Figure A-4, Existing Conditions**). Vegetation within the Category I wetlands and buffer consists of mature conifer and deciduous forest with an understory of shrubs and herbaceous species. The vegetation within Category II Lacustrine wetlands that occur within Duck Lake are comprised of aquatic bed and emergent herbaceous species.

The proposed Bank is relatively intact, as it has not been historically utilized for agriculture, large-scale timber production, or residential use. Other than an electrical transmission line within a maintained easement, there are no structures, driveways, or roads on the site. The uplands within the western portion of the site are used recreationally and are accessed by a system of unimproved trails.

The City of Ocean Shores is characterized by moderately high development density primarily comprised of single-family residences interspersed with commercial and recreational uses. Access roads lead from Ocean Lake Way to the residential areas adjacent to the eastern, northern, and southern site boundaries, and the City property, school, and church adjacent to the western site boundary. The proposed Bank site is currently zoned as single-family residential (R1).

The proposed Bank will provide a wetland mitigation bank for impacts to Interdunal wetlands within the service area by preserving the western wetland, the lacustrine fringe along Duck Lake, and high quality forested uplands. Activities associated with the Bank establishment include enhancement of onsite uplands and control of invasive species (**Figure B-1, Bank Site Design**).

The primary ecological goals of the Weatherwax Mitigation Bank are as follows;

1. Provide a wetland mitigation bank for impacts to Palustrine and Lacustrine wetlands within the service area by preserving Category I Palustrine wetlands, old growth/mature forested uplands, Category II Lacustrine wetlands associated with Duck Lake, and uplands that provide habitat for priority species.
2. Enhance onsite uplands.



3. Through preservation of critical wetlands and uplands, provide perpetual water quality, hydrologic, and habitat functions for an important lacustrine and depressional wetland system located centrally within the Ocean Shores Peninsula service area.

Ecological performance standards related to vegetation, control of invasive species, and garbage, and site protection are addressed in Appendix C of this Instrument.

**E. Interagency Review Team.** Whereas, in consideration of the establishment and maintenance of the Bank, the Interagency Review Team (IRT) is willing to award compensatory credits in accordance with the procedures outlined in this Instrument. These Bank credits will be made available to serve as compensatory mitigation pursuant to applicable Federal and Washington State laws and regulations. The Corps and Ecology serve as Co-Chairs of the IRT. The IRT is the group of Federal, State, Tribal and local agencies that has reviewed, and will advise the Co-Chairs regarding, the establishment and management of the Bank pursuant to the provisions of the Instrument.

NOW, THEREFORE, the Parties agree to the following:

## II. LEGAL AUTHORITIES

**A. Authorities.** The establishment, use, operation, and maintenance of the Bank shall be carried out in accordance with the following principal authorities.

1. Federal:
  - a. Clean Water Act (33 USC §§ 1251 et seq.)
  - b. Rivers and Harbors Act of 1899 (33 USC § 403)
  - c. Regulatory Programs of the Corps of Engineers, Final Rule (33 CFR Parts 320 -332)
  - d. U.S. Army Corps of Engineers Regulatory Guidance Letter 05-1, *Guidance on Use of Financial Assurances, and Suggested Language for Special Conditions for Department of the Army Permits Requiring Performance Bonds*, U.S. Army Corps of Engineers, February 14, 2005
  - e. Guidelines for the Specification of Disposal Sites for Dredged and Fill Material (“404(b)(1) Guidelines,” 40 CFR Part 230)
  - f. National Environmental Policy Act (42 USC §§ 4321 et seq.)
  - g. Council on Environmental Quality Procedures for Implementing the National Environmental Policy Act (40 CFR Parts 1500-1508)
  - h. Executive Order 11990 (Protection of Wetlands)
  - i. Executive Order 11988 (Protection of Floodplains)
  - j. Executive Order 13112 (Invasive Species)
  - k. Fish and Wildlife Coordination Act (16 USC §§ 661 et seq.)
  - l. Fish and Wildlife Service Mitigation Policy (46 FR 7644-7663, 1981)
  - m. Endangered Species Act (16 USC §§ 1531 et seq.)
  - n. Magnuson-Stevens Fishery Conservation and Management Act (16 USC §§ 1801 et seq.)
  - o. National Historic Preservation Act, as amended (16 USC § 470)

2. State of Washington:
  - a. Washington Water Pollution Control Act, (RCW 90.48 et seq.)
  - b. Washington State Rule on Wetland Mitigation Banking (WAC 173-700, Wetland Mitigation Banks)
  - c. State of Washington Wetlands Mitigation Banking Statute (RCW 90.84)
  - d. Washington State Environmental Policy Act (“SEPA” RCW 43.21C and WAC 197-11)
  - e. Growth Management Act (RCW 36.70A)
  - f. Washington State Hydraulic Code (RCW 77.55, WAC 220-110, Hydraulic Project Approval)
  - g. Washington State Shoreline Management Act (RCW 90.58, WAC 173-200 as amended)
  - h. Washington State Salmon Recovery Act (RCW 77.85)
  - i. Washington State Aquatic Resources Act (RCW 79.90, RCW 90.74)
  - j. Executive Orders 89-10 and 90-04, Protection of Wetlands

### III. ESTABLISHMENT OF THE BANK

**A. Permits.** The Sponsor shall obtain all appropriate environmental documentation, permits, and other authorizations needed to establish and maintain the Bank, prior to the award of any mitigation credits. Compliance with this Instrument does not fulfill the requirement, or substitute, for such authorization. Local authorizations and permits include, but are not limited to, Grays Harbor County approvals, permits, and authorizations issued under the statutory and regulatory provisions listed in the Appendices of this Instrument.

**B. Bank Establishment.** The Sponsor agrees to establish the Bank as described in Appendix B and to satisfactorily accomplish all performance standards reflected in Appendix C. In recognition thereof, credits will be awarded to the Sponsor in accordance with the procedures and schedules prescribed in the Appendices, particularly in Appendices C and D. In establishing the Bank, deviations from the prescribed Bank development plan and design, including deviations from any performance standards, may only be made with the prior approval of the Corps and Ecology, in consultation with the IRT. To propose modifications to the Bank development plan, the Sponsor shall submit a written request to the Corps and Ecology. Documentation of implemented modifications shall be made consistent with Article VI.B.2. of this Instrument. The Establishment Period of the Bank is defined in Article IV.K.

**C. Financial Assurance Requirements.** The Sponsor agrees to provide the following financial assurances for the work described in this Instrument:

1. The Sponsor intends to satisfy its obligations under this Instrument by obtaining sufficient funding to carry out all its acquisition, design, development, monitoring, and maintenance responsibilities underlying the establishment and initial functionality of the Bank, as well as its Long-Term Management and Maintenance actions prescribed in Article IV.M.1. The Sponsor provides the following financial assurances for the work described in this Instrument.

The Ocean Shores City Council will appropriate funding through the Sponsor’s Mitigation Land Bank Fund number 406. To the extent, if any, that these funds are insufficient to fully and

timely fund the Sponsor's obligations as delineated in this Instrument, the Sponsor shall include in its budget request for each fiscal period appropriations sufficient to cover the Sponsor's obligations under this Instrument for that fiscal period, and will use all reasonable and lawful means to fulfill its obligations hereunder. In the event the Ocean Shores City Council does not provide funds in sufficient amounts to discharge these obligations, the Sponsor shall use its best efforts to procure funding in order to satisfy its obligations under this Instrument from any other source of funds legally available for this purpose. Nothing herein shall constitute, nor be deemed to constitute, an obligation of future appropriations by the Ocean Shores City Council, where creating such an obligation would be inconsistent with RCW RCW 35A.33.120 or Article VIII, Section 4 of the Washington State Constitution. No mitigation credit sale revenue may be expended in execution of any Bank establishment, management, or remedial action activities. All Bank establishment and management activities shall be funded through the City of Ocean Shores general appropriation process as directed by the Ocean Shores City Council. The Sponsor will institute and maintain financial assurances in accordance with Appendix H, Financial Assurances.

**2. Long-Term Management and Maintenance Endowment Fund.** The Sponsor shall institute an endowment fund, established and maintained through an escrow account, to fund management and maintenance actions as defined in Article IV.M.1. of this Instrument and Appendix G, Section G.2., following the termination of the establishment period of the Bank. This Long-Term Management and Maintenance (LTMM) Endowment Fund shall be incrementally funded throughout the establishment period of the Bank, with the funds disbursed to a Long-Term Steward upon the Sponsor's relinquishment of responsibility for long-term management and maintenance of the Bank. The Sponsor agrees to continue to deposit funds in the LTMM Endowment Fund escrow account, pursuant to Article III.C.2.a. of this Instrument, until the LTMM Endowment Fund is fully funded in accordance with Article III.C.2.b. of this Instrument.

a. The LTMM Endowment Fund escrow account shall be funded throughout the establishment period of the Bank by depositing a designated sum corresponding to each sale or transfer of Bank credits, or use of Bank credits by the Sponsor as compensatory mitigation for its own activities causing adverse impacts to the aquatic environment. This designated sum shall be \$5,097.71 per credit sold, used, or transferred. Deposits to the LTMM Endowment Fund must be completed within 30 days of the sale, use, or transfer transaction. The Corps and Ecology must specifically approve the identity of the institution in which the escrow account is established, as well as the form of that account. Approval of the identity of the financial institution at which the escrow account is established, and the form of the investment account, shall not be unreasonably withheld.

b. The LTMM Fund shall be considered to be fully funded when the total value of the escrow account, including the principal amounts deposited and earnings, has accumulated to a total of \$60,000.00.

c. The Sponsor shall enter into an escrow agreement with both the Corps and Ecology conforming to the requirements of Appendix H, Section H.1. The escrow agreement for the LTMM Endowment Fund shall be signed prior to the release of any Bank credits, and before any construction or implementation activities may be conducted on-site during the establishment period of the bank, as defined in Article IV.K.



d. Upon receipt of written instructions signed by the Sponsor, Corps, and Ecology, the LTMM Endowment Fund escrow account shall be terminated and all funds disbursed pursuant to the instructions of the Corps and Ecology.

**D. Real Estate Provisions.** All real property to be included within the Bank is presently owned in fee simple by the Sponsor. The Sponsor shall burden the title to the Bank real property through the grant of a conservation easement, pursuant to the provisions of Appendix G, Section G.1. The conservation easement must be approved, initiated, and recorded pursuant to Appendix G, Section G.1., prior to the award of any Bank credits and before any construction or implementation activities may be conducted on-site during the establishment period of the Bank, as defined in Article IV.K. Any construction or implementation activities conducted on-site prior to the inception of the establishment period must cease as of the effective date of this Instrument pursuant to Article VI.B.1., until an approved conservation easement is recorded. The Corps and Ecology will notify the Sponsor that construction and implementation activities are authorized to commence, by granting the initial award of Bank credits in recognition of meeting all performance standards under Objective 1, pursuant to Appendix D.

#### IV. OPERATION OF THE BANK

**A. Service Area.** The Bank is approved to provide compensatory mitigation for impacts to the Waters of the United States and waters of the State, including wetlands, within the Service Area. A detailed description and maps of the Service Area are included in Appendix E.

1. The Service Area for the Bank includes both the Ocean Shores and the Westport peninsulas. The western boundary of the Service Area is the line 200' east of the Ordinary High Water Mark of the Pacific Ocean from Copalis Beach, WA south to Heather, WA. The northern extent of the Service Area extends from Copalis Beach, WA at Benner Road, east to the intersection with SR 109, then following SR 109 south to Hogans Corner to the intersection with Hale Avenue. Extending south along Hale Ave to Shamrock Way, and continuing south along Highway 115 following the contour of the bay encompassing the Ocean Shores peninsula. The southern extent of the Service Area extends from Heather, WA at Udell-Hanson Road, east to Smith Anderson Road, and following the topographic break north along Smith Anderson Road. At the terminus of Smith Anderson Road the Service Area boundary continues to follow the topographic break north to Hunt Club Road, to the intersection with Highway 105, then following the contour of Grays Harbor bay encompassing the City of Westport (**Figure E-1, Service Area**). Tidal, diked tidal, and estuarine wetlands are excluded from the Service Area. The Bank may be used to compensate for an impact that occurs within the Service Area if specifically approved by the regulatory agency(ies) that have jurisdiction over that impact, pursuant to the procedures and criteria prescribed in Appendix E.

2. In exceptional situations, the Bank may be used to compensate for an impact that occurs outside of the Service Area if specifically approved by the regulatory agency(ies) having jurisdiction over that impact and by the Corps and Ecology, following consultation with the IRT, pursuant to the procedures and criteria prescribed in Appendix E, Section E.1. If the Corps and/or Ecology determine that the Sponsor has sold, used, or transferred Bank credits at any time to

provide compensatory mitigation outside of the Service Area without prior approval, the Corps and/or Ecology, in consultation with the IRT, may direct that the sale, use, or other transfer of Bank credits immediately cease, and will determine, in consultation with the IRT, the Sponsor and the appropriate regulatory authority, what remedial actions are necessary to correct the situation and will direct their performance prior to the award of any additional Bank credits. Notwithstanding the fact that ceasing sale, use, or other transfer of Bank credits may have been required, unless this Instrument is terminated pursuant to Article IV.J. or VI.B., the Sponsor shall remain responsible for the timely and effective achievement of all the Objectives and Performance Standards mandated in Appendix C.

**B. Access to the Bank Site.** The Sponsor will allow, or otherwise provide for, access to the Bank site by members of the IRT or their agents or designees, as reasonably necessary for the purpose of inspection, compliance monitoring, and remediation consistent with the terms and conditions of this Instrument and the Appendices, throughout the periods of Bank establishment, operation, and long-term management and maintenance. Inspecting parties shall provide the Sponsor at least 48 hours prior notice of a scheduled inspection, and shall not unreasonably disrupt or disturb activities on the property.

**C. Availability and Sale, Transfer, or Use of Credits.** Subject to the documentation and scheduling provisions of Appendix D, Section D.1., the Sponsor may submit to the IRT written evidence that particular performance standards have been achieved. If the Corps and Ecology, after consulting with the IRT and the Sponsor, concur that certain performance standards have been achieved in full, the Corps and Ecology will respond in writing to the Sponsor that the Bank credits associated with those performance standards are available for sale, transfer, or use by the Sponsor as compensatory mitigation for its own activities causing adverse impacts to the aquatic environment. Each instance of sale or any other transfer of Bank credits to a third party shall be reflected in a credit transaction agreement, retained by the Sponsor and made available for Corps and/or Ecology review, if requested. Each such credit transaction agreement must include the name, address, and telephone number of the purchaser or transferee. Each transaction agreement that is associated with a permit must also indicate the permit number of the impacting project, the number of Bank credits involved in the transaction, and must expressly specify that the Sponsor, and its successors and assigns, assume legal responsibility for accomplishment and maintenance of the transferee's compensatory mitigation requirements associated with the impacting project, upon completion of the credit transaction. Each credit transaction agreement that is associated with a permit shall be recorded with the county auditor. A copy of the recorded transaction agreement shall be provided to the Corps and Ecology.

**D. Credit Deficit or Fraudulent Transactions.** If the Corps and/or Ecology determine at any point that the Bank is operating at a deficit, or has engaged in fraudulent transactions in the sale, use, or other transfer of Bank credits, the Corps and/or Ecology will cease the award of, and will direct the Sponsor to immediately cease sale, use, or other transfer of, Bank credits. The Corps and/or Ecology will determine, in consultation with the IRT and the Sponsor, what remedial actions are necessary to correct the situation and will direct their performance prior to the award of any additional Bank credits.

**E. Provisions for Use of the Mitigation Bank Area.** The Corps and/or Ecology may consider the Sponsor as being in material default of a provision of this Instrument and proceed accordingly under Article IV.J. should the Corps and/or Ecology, in consultation with the IRT, determine that either of the following have occurred:

1. The grant of additional easements, rights-of-way, or any other property interest in the Bank site without written notification to the Corps and Ecology in accordance with Article IV.N.

2. The use, or authorization of the use, or suffering the use, of any areas within the Bank for any purpose that is contrary to the provisions of this Instrument or the conservation easement, or which interferes with the conservation purposes of the Bank.

**F. Maintenance Provisions.** Following achievement of the performance standards, the Sponsor agrees to perform all necessary work to maintain those standards as prescribed in Appendix F, Section F.5.

**G. Monitoring Provisions.** The Sponsor agrees to perform all necessary work, pursuant to Appendix F, to monitor the Bank during the establishment period to demonstrate compliance with the performance standards established in Appendix C.

**H. Contingency Plans/Remedial Actions.** In the event the Bank fails to achieve one or more of the performance standards within the specific time schedule delineated in Appendix D, the Sponsor shall develop necessary contingency plans and implement appropriate remedial and monitoring actions for the Bank as specified in Appendix F, Section F.4., to attain those project objectives and performance standards. Prior to implementing any remediation, supplemental monitoring, or other corrective measures, the Sponsor shall obtain approval of the contingency plans from the Corps and Ecology. The Corps and Ecology shall consult with the IRT prior to approval of the plans. All appropriate environmental documentation, permits, and other authorizations needed to implement the contingency plan or take remedial action shall be obtained by the Sponsor. In the event the Sponsor fails to implement necessary contingency actions within the period prescribed by the Corps and Ecology in the notification of approval of the contingency plans, the Corps and/or Ecology, in consultation with the Sponsor and the IRT, will direct remedial, corrective, and/or sanctioning action in accordance with the procedures specified in Appendix F, Section F.4.A.

**I. Force Majeure.** The Sponsor may request pursuant to Article III.B., and the Corps and Ecology may approve, changes to the construction, operation, objectives, performance standards, timelines, or credit generation and award schedule of the Bank, pursuant to the standards and procedures specified in Appendix F, if all of the following occur: an act or event causes substantial damage such that it is determined to be a result of force majeure; such act or event has a significant adverse impact on the quality of the aquatic functions, native vegetation, or soils of the Bank site; and such act or event was beyond the reasonable control of the Sponsor, its agents, contractors, or consultants to prevent or mitigate.

1. The evaluation of the damage caused by force majeure and the resulting changes to mitigation requirements involve a communicative process. If the Sponsor asserts a mitigation site



has sustained significant adverse impacts due to an event or act which may be determined to be force majeure, the Sponsor shall give written notice to the Corps, Ecology, and the IRT as soon as is reasonably practicable. After receiving written notice, the Corps and Ecology, in consultation with the Sponsor and the IRT, shall evaluate whether the event qualifies as force majeure. The Corps and Ecology, in consultation with the Sponsor and the IRT, will then evaluate whether significant adverse impacts have occurred to the site. If a force majeure event is determined to have occurred and significant adverse impacts are found to have occurred to the site, the Corps and Ecology, in consultation with the IRT and the Sponsor, will evaluate whether and to what extent changes to the Bank site will be in the best interest of the site and the aquatic environment, and may approve such changes as detailed above. The Corps and Ecology retain sole discretion over the final determination of whether an act or event constitutes force majeure, whether significant adverse impacts to the Bank site have occurred, and to what extent changes to the Bank site or its management will be permitted.

**2.** Force majeure events include natural or human-caused catastrophic events or deliberate and unlawful acts by third parties.

- a. Examples of a natural catastrophic event include, but are not limited to: a flood equal to or greater in magnitude than the 100-year flood event; an earthquake of a force projected from an earthquake with a return period of 475 years; drought that is significantly longer than the periodic multi-year drought cycles that are typical of weather patterns in the Pacific Northwest; as well as events of the following type when they reach a substantially damaging nature: disease, wildfire, depredation, regional pest infestation, or significant fluviogeomorphic change.
- b. Examples of a human-caused catastrophic event include, but are not limited to substantial damage resulting from the following: war, insurrection, riot or other civil disorders, spill of a hazardous or toxic substance, or fire.
- c. Examples of a deliberate and unlawful act include, but are not limited to substantial damage resulting from the following: the dumping of a hazardous or toxic substance, as well as significant acts of vandalism or arson.

**3.** The consequences of any events of force majeure recognized as such by the Corps and Ecology shall not affect the status of previously released Bank credits, whether or not they have yet been sold, used, or transferred.

**J. Default.** Should the Corps and/or Ecology, in consultation with the IRT, determine that the Sponsor is in material default of any provision of this Instrument, the Corps and/or Ecology may cease award of Bank credits, and may notify the Sponsor that the award, sale, and/or transfer of Bank credits, or use by the Sponsor of Bank credits as compensatory mitigation for its own activities causing adverse impacts to the aquatic environment, are suspended until the delineated deficiencies are rectified. Upon written notification of suspension, the Sponsor agrees to immediately cease any sale or transfer transactions not yet finally completed, and/or to cease any use by the Sponsor of Bank credits as compensatory mitigation for its own activities causing adverse impacts to the aquatic environment where a Corps or Ecology permit or authorization, as required, has not yet been issued, until informed by the notifying agency that award, sale, use, or transfer of Bank credits may be resumed. Should the Sponsor remain in default for a period of 90

days, the Corps and Ecology, following consultation with the IRT, may terminate this Instrument and any subsequent banking operations. In the event such termination action is commenced, the Sponsor agrees to fulfill its pre-existing obligations to perform all establishment, monitoring, maintenance, management, and remediation responsibilities that arise directly from Bank credits that have already been awarded, sold, used, or transferred at the time of termination. In the event of termination, no further sale or transfer of Bank credits may occur, nor any use by the Sponsor of Bank credits as compensatory mitigation for its own activities causing adverse impacts to the aquatic environment within the Service Area where a Corps or Ecology permit or authorization, as required, has not yet been issued.

**K. Establishment Period of the Bank.** The establishment period of the Bank will commence on the date the Instrument takes effect pursuant to Article VI.B.1. Prior to termination of the establishment period of the Bank, the Corps and Ecology, in consultation with the IRT, will perform a final compliance inspection to evaluate whether all performance standards have been achieved. The establishment period for the Bank will terminate, and the period of long-term management and maintenance will commence, when the Corps and Ecology determine, in consultation with the IRT and the Sponsor, that the following conditions have been met:

- (1) all applicable performance standards prescribed in Appendix C have been achieved;
- (2) all available Bank credits have been awarded, or the Corps and Ecology, in consultation with the IRT, have approved the Sponsor's written request to permanently cease banking activities;
- (3) the Sponsor has prepared a Long-Term Management and Maintenance Plan that has been approved by the Corps and Ecology, pursuant to Article IV.M.1. and Appendix G, Section G.2.;
- (4) the Sponsor has either:
  - (i) assumed responsibilities for accomplishing the Long-Term Management and Maintenance Plan, in which case the Sponsor will fulfill the role of Long-Term Steward, or
  - (ii) assigned those responsibilities to another Long-Term Steward pursuant to Article IV.M.2. of this Instrument;
- (5) the LTMM Endowment Fund has been fully funded;
- (6) the contents of the LTMM Endowment Fund have been transferred to the Long-Term Steward; and
- (7) the Bank has complied with the terms of this Instrument.

**L. Operational Life of the Bank.** The operational life of the Bank will commence on the date the Instrument takes effect pursuant to Article VI.B.1. Following the termination of the establishment period of the Bank, and (1) upon sale, transfer, or use by the Sponsor as compensatory mitigation for its own activities causing adverse impacts to the aquatic environment, of all Bank credits, or (2) upon approval by the Corps and Ecology, in consultation with the IRT, of the Sponsor's written request to permanently cease banking activities, the operational life of the Bank will terminate.

**M. Long-Term Management and Maintenance.**

1. The Sponsor shall develop a Long-Term Management and Maintenance Plan consistent with the guidelines and objectives specified in Appendix G, Section G.2., and submit the Long-

Term Management and Maintenance Plan for approval by the Corps and Ecology, in consultation with the IRT. The Sponsor is responsible, as Long-Term Steward, for execution of the approved Long-Term Management and Maintenance Plan. The Sponsor may only deviate from the approved Long-Term Management and Maintenance Plan upon written approval by the Corps and Ecology, following consultation with the Sponsor and the IRT.

2. The Sponsor may assign its long-term management and maintenance responsibilities to a third party assignee, which will then serve as Long-Term Steward in place of the Sponsor. The identity of the assignee and the terms of the long-term management and maintenance agreement between the Sponsor and the assignee must be approved by the Corps and Ecology, in consultation with the IRT, in advance of the long-term management and maintenance assignment.

3. Upon execution of a long-term management and maintenance assignment agreement and the transfer of the contents of the LTMM Endowment Fund, and upon satisfaction of the remaining requirements for termination of the establishment period of the Bank under Article IV.K. of this Instrument, the Sponsor shall be relieved of all further long-term management and maintenance responsibilities under this Instrument.

**N. Accomplishment of Sponsorship Responsibilities; Transfer of Ownership of the Bank Site.** The Sponsor shall remain responsible for complying with the provisions of this Instrument throughout the operational life of the Bank, regardless of the ownership status of the underlying real property, unless those responsibilities have been assigned pursuant to the provisions of Article VI.C. of this Instrument. The Sponsor shall provide written notice at least 60 days in advance of any transfer of ownership of all or a portion of the Bank real property to another party, by any owners of real property comprising the Bank site, or their successors or assigns.

## **V. RESPONSIBILITIES OF THE CORPS AND ECOLOGY**

**A.** The Corps and Ecology agree to provide appropriate oversight in carrying out provisions of this Instrument.

**B.** The Corps and Ecology agree to review and provide comments on project plans, monitoring reports, contingency and remediation proposals, and similar submittals from the Sponsor in a timely manner. The Corps and Ecology will coordinate their review with the IRT.

**C.** The Corps and Ecology agree to review requests to modify the terms of this Instrument, determine achievement of performance standards in order to evaluate the award of Bank credits, or approve the Long-Term Management and Maintenance Plan. The Corps and Ecology will coordinate review with the IRT so that a decision is rendered, or comments detailing deficiencies are provided, in a timely manner. The Corps and Ecology agree to not unreasonably withhold or delay decisions on such requests.

**D.** The Corps and Ecology agree to act in good faith when rendering decisions about acceptability of financial assurances, requiring corrective or remedial actions, requiring long-term management and maintenance actions, and awarding Bank credits. Corps and Ecology approval of the identity of any assignee responsible for executing the Long-Term Management and



Maintenance Plan, and approval of the terms of any long-term management and maintenance assignment agreement, will not be unreasonably withheld.

**E.** The Corps and Ecology will periodically inspect the Bank site as necessary, in consultation with the IRT, to evaluate the achievement of performance standards, to assess the results of any corrective measures taken, to monitor implementation of the Long-Term Management and Maintenance Plan, and, in general, to verify the Sponsor's compliance with the provisions of this Instrument.

**F.** Upon satisfaction of the requirements of Article IV.K. under this Instrument, the Corps and Ecology will jointly issue a letter certifying that the establishment period of the Bank has terminated, and that the period of long-term management and maintenance has begun, in consultation with the IRT. Upon satisfaction of the requirements of Article IV.L. of this Instrument, the Corps and Ecology will jointly issue a letter certifying that the operational life of the Bank has terminated.

## **VI. GENERAL PROVISIONS**

**A. Decision Making by Consensus.** The Corps and Ecology will strive to achieve consensus among the IRT regarding issues that arise pertaining to the establishment, operation, maintenance, and management of the Bank. The Corps and Ecology will coordinate the review and oversight activities of the IRT to best facilitate opportunity to reach the desired consensus. Review and oversight decisions will take into account the views of the Sponsor to the maximum extent practicable. Where consensus cannot otherwise be reached within a reasonable timeframe, following full consideration of the comments of the IRT and following consultation with the Sponsor, the Corps holds the responsibility and authority under Section 404 of the Clean Water Act, and Ecology holds independent responsibility and authority under Section 401 of the Clean Water Act and ch. 90.48 RCW, to make final decisions regarding the application of the terms of this Instrument.

### **B. Entry into Effect, Modification or Amendment, and Termination of the Instrument.**

**1.** This Instrument, consisting of both this Basic Agreement and the Appendices, will enter into effect upon the signature by authorized representatives of each of the Corps, Ecology, and the Sponsor, as of the date of the last of these signatures.

**2.** This Basic Agreement portion of the Instrument may be amended or modified only with the written approval of the Sponsor, the Program Manager for Shorelands and Environmental Assistance on behalf of Ecology, and the Seattle District Engineer on behalf of the Corps, or their designees. Any such modifications or amendments will take effect following consultation with the IRT. Amendment or modification of the provisions of the Appendices may be effectuated through an exchange of letters signed by the Sponsor, the Mitigation Program Manager serving as Co-Chair on behalf of the Corps, and the Wetland Section Manager serving as Co-Chair on behalf of Ecology, following consultation with the IRT, provided the exchange of letters expresses mutual agreement as to the exact language to be deleted or modified, and the exact language to be inserted.

3. This Instrument may be terminated by the mutual agreement of the Sponsor, Corps, and Ecology, following consultation with the IRT, or may be terminated under the terms of Article IV.J. of this Instrument in the case of default by the Sponsor. In the event any termination action is commenced, the Sponsor agrees to fulfill its pre-existing obligations to perform all establishment, monitoring, maintenance, management, and remediation responsibilities that arise directly from Bank credits that have already been sold, used, or transferred at the time of termination.

4. Upon termination of the operational life of the Bank pursuant to Article IV.L., and certification to that effect pursuant to Article V.F., this Instrument shall terminate without further action by any Party. Thereafter, the Long-Term Management and Maintenance Plan developed, approved, and instituted in accordance with Article IV.M. shall govern the continuing obligations of the Sponsor, or its assignee as applicable.

**C. Assignment of Obligations under this Instrument.** The Sponsor may be permitted to assign its obligations, responsibilities, and entitlements under this Instrument to a third party. The Corps and Ecology, following consultation with the IRT, must approve the identity of the assignee in order for any assignment of this Instrument to effectively relieve the Sponsor of those obligations. In evaluating a prospective assignee, the Corps and Ecology may consider characteristics such as environmental mitigation expertise, wetlands mitigation project or analogous experience, and financial strength and stability. Approval of the identity of the assignee will not be unreasonably withheld. The assignee must execute a mitigation banking instrument with the Corps and Ecology under terms identical, to the extent practicable, to the present Instrument. The applicable financial assurances, including those established pursuant to Article III.C.2. of this Instrument must be initiated. The obligations, responsibilities, and entitlements under this Instrument may reside in only a single entity at any one time, and may not be severed or transferred piecemeal. However, the physical ownership of the Bank site real property and the obligations, responsibilities, and entitlements under this Instrument are separate and distinct; thus, ownership may be transferred pursuant to the provisions of Article IV.N., independently of assignment of this Instrument. Once assignment of this Instrument has been properly accomplished, the Sponsor will be relieved of all its obligations and responsibilities under this Instrument. Specific additional provisions pertaining to the assignment of long-term management and maintenance obligations are described at Article IV.M.

**D. Specific Language of this Basic Agreement Shall Be Controlling.** To the extent that specific provisions of this Basic Agreement portion of the Instrument are inconsistent with any terms and conditions contained in the Appendices, or inconsistent with other documents that are incorporated into this Instrument by reference and that are not legally binding, the specific language within this Basic Agreement shall be controlling.

**E. Notice.** Any notice required or permitted hereunder shall be deemed to have been given either (i) when delivered by hand, or (ii) three (3) days following the date deposited in the United States mail, postage prepaid, by registered or certified mail, return receipt requested, or (iii) when sent by Federal Express or similar next-day nationwide delivery system, addressed as follows (or addressed in such other manner as the party being notified shall have requested by written notice to the other party):

**City of Ocean Shores**

P.O. Box 909  
801 Minard Avenue NW  
Ocean Shores, Washington 98569  
360-289-3099

**U.S. Army Corps of Engineers, Seattle District**

Mitigation Banking Specialist/Co-Chair of the IRT  
Regulatory Branch  
Seattle District, Corps of Engineers  
4735 E. Marginal Way South  
P.O. Box 3755  
Seattle, Washington 98124-3755  
206-764-3495

**Washington State Department of Ecology**

Mitigation Banking Specialist/ Co-Chair of the IRT  
Shorelands and Environmental Assistance Program  
P.O. Box 47600  
300 Desmond Drive  
Olympia, Washington 98504-7600  
360-407-6000

**F. Entire Agreement.** This Instrument, consisting of both this Basic Agreement and the Appendices, constitutes the entire agreement between the Parties concerning the subject matter hereof.

**G. Invalid Provisions.** In the event any one or more of the provisions contained in this Instrument are held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability will not affect any other provisions hereof, and this Instrument shall be construed as if such invalid, illegal, or unenforceable provision had not been contained herein.

**H. Effect of Agreement.**

**1.** This Instrument does not in any manner affect statutory authorities and responsibilities of the signatory Parties. This Instrument is not intended, nor may it be relied upon, to create any rights in third parties enforceable in litigation with the United States or the State of Washington. This Instrument does not authorize, nor shall it be construed to permit, the establishment of any lien, encumbrance, or other claim with respect to the Bank site, with the sole exception of the right on the part of the Corps and Ecology to require the Sponsor to implement the provisions of this Instrument, including recording the conservation easement, required as a condition of the approval of the crediting plan reflected in this Instrument and the issuance of any permits for discharges of dredged and fill material into waters of the United States associated with construction, operation and maintenance of the Bank.

2. Corps approval of this Instrument constitutes regulatory approval required for Weatherwax Mitigation Bank to be used to provide compensatory mitigation for Department of the Army permits pursuant to 33 C.F.R. 332.8(a)(1). This Instrument is not a contract between the Sponsor or property owner and the Corps or any other agency of the Federal government. Any dispute under this Instrument will not give rise to any claim by the Sponsor or property owner for monetary damages. This provision is controlling notwithstanding any other provision or statement in the Instrument to the contrary.

**I. Attorneys' Fees.** If any action at law or equity, including any action for declaratory relief, is brought to enforce or interpret the provisions of this Instrument, each party to the litigation shall bear its own attorneys' fees and costs of litigation.

**J. Availability of Funds.** Implementation of this Instrument is subject to the requirements of the Anti-Deficiency Act, 32 U.S.C. § 1341, and the availability of appropriated funds. Nothing in this Instrument may be construed to require the obligation, appropriation, or expenditure of any money from the United States Treasury, in advance of an appropriation for that purpose.

**K. Headings and Captions.** Any paragraph heading or caption contained in this Instrument shall be for convenience of reference only and shall not affect the construction or interpretation of any provision of this Instrument.

**L. Counterparts.** This Instrument may be executed by the Parties in any combination, in one or more counterparts, all of which together shall constitute one and the same instrument.

**M. Binding.** This Instrument, consisting of both this Basic Agreement and the Appendices, shall be immediately, automatically, and irrevocably binding upon the Sponsor and its heirs, successors, assigns, and legal representatives upon execution by the Sponsor, Ecology, and the Corps.

IN WITNESS WHEREOF, the Parties hereto have executed this Instrument on the date herein below last written.

**PARTIES**

By the Sponsor:

\_\_\_\_\_  
Crystal L. Dinger  
Mayor, City of Ocean Shores

\_\_\_\_\_  
Date

By the Corps:

\_\_\_\_\_  
Bruce A. Estok  
Colonel, Corps of Engineers  
Seattle District Engineer

\_\_\_\_\_  
Date

By Ecology:

\_\_\_\_\_  
Gordon White  
Program Manager, Shorelands and Environmental Assistance Program  
Washington State Department of Ecology

\_\_\_\_\_  
Date

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## APPENDIX A GENERAL BANK INFORMATION

### A.1 Business Purpose and Ecological Goals of the Bank

The purpose of the Bank is to generate mitigation credits for projects that will have an adverse impact on the aquatic environment, and that need to compensate for those impacts as a condition of their permits or other regulatory requirements resulting from project impacts.

The primary ecological goals of the Weatherwax Mitigation Bank are as follows:

1. Preserve Category I Palustrine wetlands, old growth/mature forested uplands, Category II Lacustrine wetlands associated with Duck Lake, and uplands that provide habitat for priority species.
2. Enhance onsite uplands.
3. Through preservation of critical wetlands and uplands, provide perpetual water quality, hydrologic, and habitat functions for an important lacustrine and depressional wetland system located centrally within the Ocean Shores Peninsula service area.

Relevant documentation supporting the technical information in these appendices is included in a separate Resource Folder. The Resource Folder is not considered part of the MBI but is prepared by the Sponsor and provided to all IRT members to serve as a reference document. The Resource Folder includes the *Jurisdictional Wetland Analysis* report, *Prospectus for the City of Ocean Shores Wetland Mitigation Bank*, *City of Ocean Shores Wetland Mitigation Bank Additional Information Packet*, and other technical information that was used to establish baseline conditions at the Bank and support the design for the site.

### A.2 Bank Location and Legal Description

The Bank is located in the south quarter of Section 2 and the north quarter of Section 11, in Township 17 North, Range 12 West of the Willamette Meridian, in the City of Ocean Shores, Grays Harbor County, Washington (**Figure A-1, Vicinity Map**). The Bank site is in the Water Resource Inventory Area (WRIA) 22, Lower Chehalis Basin. Single-family residences border the Bank site to the south and east. A water treatment plant, undeveloped forested land, a church, and public school borders the Bank site to the west, with a public road bordering the site to the north.

All real property to be included within the Bank site is 121.86 acres within tax parcel 617121121000 and the portion of tax parcel 617121011003 that will provide the required buffer area as described in Exhibit A. (Exhibit A, Figure A-2, Site Survey). These parcels are owned in fee simple by the City of Ocean Shores. Parcel 617121121000 has been pledged as well as that portion of parcel 617121011003 to be dedicated as buffer area as outlined in Exhibit A for use in the Bank in a manner consistent with this Instrument. The primary Bank site consists of one tax lot (617121121000) that includes a 15.66 acre portion of Duck Lake, with a portion of the site's 100 foot buffer to the west within another tax lot (617121011003). Parcel 617121121000 includes a power line easement area held by the Grays Harbor Public Utility District (PUD)

totaling 2.45 acres. However, the easement area and Duck Lake are not included in the credit-generating area of the Mitigation Bank. The 100-foot buffer widths around the perimeter of the site are based on current and anticipated land-use intensities on adjacent properties and the risk of impacts to the Bank from adjacent activities and total 19.37 acres, and are also excluded from the credit-generating area of the Bank. After considering the buffers as discussed above, and excluding Duck Lake and the power line easement area, the available area for credit generation is 84.38 acres (**Figure A-3, Mitigation Area Site Map**). The legal description of the Bank site is provided in **Exhibit A**.

**Table A-1: Proposed Bank**

<b>Bank Activities/Areas</b>	<b>Full Bank Area (acres)</b>	<b>Buffers (acres)</b>	<b>Credit Generating (acres)</b>
Wetland Mosaic Preservation	46.11	11.06	35.05
Old-Growth/Mature Preservation	32.60	5.42	27.18
Mature Forest Preservation	7.16	1.04	6.12
Lacustrine Wetland Fringe Preservation	11.07	0.73	10.34
Upland Enhancement	6.81	1.12	5.69
Powerline Easement	2.45	N/A	0.00
Duck Lake	15.66	N/A	0.00
<b>Total</b>	<b>121.86</b>	<b>19.37</b>	<b>84.38</b>

Inclusion of the aforementioned property in the Bank and granting of a conservation easement restricting future land uses for the benefit of the Bank shall not convey or establish any property interest on the part of any Party to this Instrument, nor convey or establish any interest in Bank credits. The Instrument does not authorize, nor shall it be construed to permit, the establishment of any lien, encumbrance, or other claim with respect to the property, with the sole exception of the right on the part of the Corps and Ecology to require the Sponsor to implement elements of this Instrument, including recording the conservation easement, in exchange for Corps and Ecology approval of this Instrument and the program of development and use of mitigation credits delineated herein.

### **A.3 Site Description and Baseline Conditions**

#### **A.3.1 Site Description**

Currents, waves, and wind have swept sand north from the Columbia River mouth for over five thousand years resulting in the buildup of spits/peninsulas, comprised of beaches and linear dunes, along the southwest Washington coast. The Ocean Shores peninsula is the most northern of the spits/peninsulas along the southwest Washington coast. The Ocean Shores peninsula is situated in a landscape comprised of an accreting sand beach on the western side, along the Pacific Ocean, an eroded inland estuary (Grays Harbor Bay) to the east, and the confluence of Grays Harbor Bay and the Pacific Ocean to the south. Historically the peninsula was narrower than it is today. When jetties were built in the early 1900's at the southern point of the peninsula to improve navigation, accelerated accretion occurred, particularly along the western side along the Pacific Ocean.

Historically, Duck Lake was a shallow interdunal lake part of a larger interdunal wetland/lake system that occurred along the geologically older eastern portion of the Ocean Shores Peninsula within an approximately six mile-long north-south orientated swale between historic dunal formations (**Figure A-12, 1940's Aerial Photograph**).

During the development of Ocean Shores, Duck Lake was dredged and enlarged, and a system of drainage canals was developed west of the currently configured lake (**Figure A-13, 1970's Aerial Photograph**).

The proposed 121.86 acre Bank site is roughly located in the middle of the Ocean Shores peninsula, within the City of Ocean Shores. Today, the City of Ocean Shores is characterized by moderately high development density primarily comprised of single-family residences interspersed with commercial and recreational uses. The proposed Bank site is currently zoned as single-family residential (R1) by the City. Access roads lead from Ocean Lake Way to residential areas adjacent to the eastern, northern, and southern Bank site boundaries, and the City property, school, and church adjacent to the western site boundary.

The Bank site is comprised of historic dunal formations to the west and east, with a 15.66 acre portion of Duck Lake occurring in the central portion of the site. The site's upper elevations range from approximately 20 to 25 feet above mean sea level, with the lowest site elevations occurring within the portion of the site that contains Duck Lake. The crest of the most western historic traverse dune, indicative of a possible past shoreline, runs through the western portion of the Bank site and is the location of the site's upper elevations.

The most eastern portion of the site is comprised of mature forested uplands (totaling 7.16 acres inclusive of the 100-foot buffer) bounded by 1,120 linear feet of Duck Lake and Category II Lacustrine wetlands comprised of aquatic bed and emergent wetland vegetation that occur within the lake (**Figure A-14, East Property Terrestrial Priority Habitats Map**). A 6.81 acre peninsula (identified as the Point), with 1,427 linear feet of Category II Lacustrine wetlands along the Point's Duck Lake shoreline, is located within the north-central portion of the site. The Point's vegetation is comprised of scrub-shrub upland (**Figure A-4, Existing Conditions**).

Continuing west, there is 2,640 linear feet of Category II Lacustrine wetlands along the Duck Lake shoreline of the western portion of the site. West of the western Duck Lake shoreline 32.60 acres (inclusive of the 100 foot buffer) of old growth/mature forest occur within an area of increasing elevation up to the crest of a historic traverse dune. The old growth/mature forested uplands are used recreationally and are accessed by a system of unimproved trails. Elevations decrease west of the crest of the historic traverse dune and the old growth/mature forest continues west until a maintained north-south running utility easement held by the Grays Harbor PUD (totaling 2.45 acres) is encountered. Other than the electrical transmission line within the maintained easement, there are no structures, driveways, or roads on the site. Old growth/mature forest continues west of the easement as elevations gradually decrease to the west towards the western site boundary. Within the lowest elevations there are Category I depressional mosaic wetlands (totaling 46.11 acres inclusive of the 100-foot buffer) in this section of mature forest. Vegetation within the Category I wetland mosaic, and the buffer, consists of mature conifer and deciduous forest with an understory of shrubs and herbaceous species (**Figure A-5, Existing Mature Forested Category 1 Wetland Mosaic**).

### A.3.2 Baseline Conditions

The following description of the mitigation site includes discussions of the soils, hydrology, vegetation, and wildlife on the Bank site.

#### Soils

Soils within the proposed Bank are shown on **Figure A-6, Soil Survey Map**. Soil types were identified on the United States Department of Agriculture's Natural Resources Conservation Service internet site (NRCS 2012b) as (92) Netarts fine sand, 3 to 12 percent slopes, (146) Udipsamments, level, and (169) Water. Netarts fine sand is listed as a hydric soil by the State of Washington (NRCS 2012a). Netarts fine sand is classified as very deep, well-drained soil that occurs on old, stabilized, sand dunes. Native woody vegetation typically consists of conifers. Udipsamments, level, is formed in gravelly sand, and is classified as very deep, excessively drained soils found in depressional areas with 0 to 2 percent slopes. Native vegetation is sparse grasses and shrubs. Udipsamments soil is used as sites for homes or commercial buildings or as a source of fill material.

#### Hydrology

The Ocean Shores peninsula is located within a cataloged hydrological unit (hydrologic unit code (HUC) 12-171001050107) that includes the majority of peninsula. The peninsula is located within the most western portion of the hydrological unit within the lowest hydraulic gradient, with the Bank site occurring within the lowest gradients. The primary hydrologic sources for the Bank site wetlands are a shallow groundwater table and precipitation. **Figure A-7, Hydroperiods**, shows the wide range of water regimes within the Bank site. The mosaic system of Palustrine wetlands within the western portion of the Bank site have seasonally inundated hydroperiods, while Duck Lake's Lacustrine wetlands have permanent, seasonal, and occasionally inundated hydroperiods.

Duck Lake, the lake's associated canal system, and other waterways within the City of Ocean Shores function as groundwater and surface water discharge areas that eventually discharge to Grays Harbor Bay through an overflow weir at the south-eastern tip of the Ocean Shores peninsula. Grays Harbor (Bay) is a 303d listed waterbody with a current Washington State Department of Ecology (Ecology) total maximum daily load (TDML) in place to address water quality issues stemming from dioxin and fecal coliform bacteria (Ecology 2011a; Ecology 2011b). Duck Lake is considered a Category 4C impaired water body by Ecology due to the presence of the invasive exotic aquatic species Brazilian elodea (*Egeria densa*), and Eurasian water-milfoil (*Myriophyllum spicatum*) (Ecology 2012). Due to a combination of road and drainage projects, as well the presence of numerous canals, the freshwater wetlands, and lakes located within the Ocean Shores peninsula are likely hydrologically interconnected. According to Hruby, all wetlands in western Washington are assumed to be linked via ground water (Hruby et al. 1999).

#### Vegetation

The *Prospectus for the City of Ocean Shores Wetland Mitigation Bank*, *City of Ocean Shores Wetland Mitigation Bank Additional Information Packet*, and other technical information that was used to establish baseline conditions at the Bank have documented the plant species that occur within the Bank site. Thus far, no plant species identified as federal endangered,

threatened, proposed, candidate, or species of concern have been found, and no state endangered, threatened, or sensitive plant species have been identified within the Bank site (WDNR 2010a).

A map of Cowardin vegetation classes within the proposed mitigation bank is shown on **Figure A-8, Cowardin Vegetative Classes**, which include aquatic bed, emergent, scrub-shrub, and forested. Forested areas have multiple strata including trees, sub-canopy, shrubs, herbaceous plants, and mosses/groundcovers.

The Bank site contains characteristics of two Washington State Department of Fish and Wildlife (WDFW) defined Priority Habitats: old growth/mature forest and biodiversity area/corridor. In addition, it qualifies for at least two of the Washington Department of Natural Resources (WDNR) Natural Heritage Program habitats: low elevation freshwater wetlands and western hemlock/salal forest.

The Bank site plant communities that are listed by the WDNR *Washington Natural Heritage Program* information system as Known High-Quality or Rare Plant Communities and Wetland Ecosystems of Grays Harbor County, Washington, include low-elevation freshwater wetlands, and western hemlock (*Tsuga heterophylla*)/salal (*Gaultheria shallon*) forest (WDNR 2010b). Within the mosaics of mature forested freshwater Palustrine wetlands in the western portion of the Bank site, Pacific crabapple (*Malus fusca*) is the dominant overstory species, with Sitka spruce (*Picea sitchensis*) and red alder (*Alnus rubra*) also commonly occurring within the overstory. Salmonberry (*Rubus spectabilis*) is the dominant species within the shrub stratum, with slough sedge (*Carex obnupta*) dominant within the herbaceous stratum.

The plant community along Duck Lake, within the lake's freshwater Lacustrine wetlands, is predominately comprised of giant bur-reed (*Sparganium eurycarpum*). The occurrence of giant bur-reed herbaceous vegetation within Grays Harbor County may be underreported. South of the Bank site, in Pacific County, giant bur-reed herbaceous vegetation is listed by the WDNR as Known High-Quality or Rare Plant Communities and Wetland Ecosystems of Pacific County, Washington (WDNR 2010c). A mature Sitka spruce/western hemlock forest, with salal dominant within the understory, is the dominant plant community within the mature forested uplands in the eastern portion of the Bank site.

Other than the Bank area identified as the Point, the majority of the Bank uplands meet the WDFW definition of Priority Habitat old growth and mature forest. Old growth is defined by WDFW as stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees per acre > 81 cm (32 in) diameter-at-breast height (dbh) or > 200 years of age, with mature forest defined as stands with average diameters 53 cm (21 in) dbh. The Bank site's old growth and mature forest have multi-layered canopies with occasional small openings, and are primarily dominated by large Sitka spruce trees interspersed with western hemlock. The old-growth forest within the western portion of the site extends west from the western shore of Duck Lake to the utility easement, and then continues west to the western boundaries of the Bank site. Some of the largest trees within the western portion of the Bank site have widths ranging from 32-to 52-inches dbh.

Although at an earlier successional stage with less structural and plant species diversity than the Priority Habitat within the western Bank site, the mature forest within the eastern Bank site

shares similar animal and plant species compositions, and also meets the WDFW definition of Priority Habitat. A mature Sitka spruce/western hemlock forest, with salal dominant within the understory, is the dominant plant community within the eastern portion of the Bank site. However, western hemlock is becoming dominant in the shadiest closed canopy areas, particularly within northeastern area (of the eastern portion of the Bank site). The average age of the trees within the eastern portion of the Bank site are estimated to range from 80 to 100 years old and have average dbh widths ranging from 25- to 30-inches. The majority of the oldest and largest trees within the eastern portion of the Bank site, with the greatest dbh widths, were observed to be Sitka spruce generally located within the western area of the eastern portion of the Bank site on what was likely the western slope and crest of a north-south orientated historic traverse dune.

The Priority Habitats within the eastern and western Bank site areas overlap with Duck Lake's riparian zone, and the Bank area identified as the Point is almost entirely encompassed by the lake's riparian zone. The Point's vegetation is comprised of scrub-shrub upland with young shore pine dominant.

#### Recreational Trails

The old growth/mature forested uplands within the western portion of the site are used recreationally through a system of unimproved trails (**Figure A-9, Trail System Map**). To foster public support for the Bank and stewardship, the Bank sponsor will allow continued access of the main trails used by the public, and will decommission several side trails as follows; 935 linear feet of trail throughout the Category I wetland mosaic and over 1,814 linear feet within the adjacent Priority Uplands. Decommissioned trails will be enhanced with strategically placed clusters of mixed woody debris (MWD), plants and barriers placed at trail entrances to deter continued use of the trail and provide additional habitat structure and function. In addition, signs will be placed at each decommissioned trail entrance that will provide notice of trail closure.

#### Grays Harbor PUD Easement

The 2.45-acre easement bisecting the western parcel consists of a single line of above ground utility poles. This easement consists of a corridor which begins and ends at the north/south bank boundaries. The easement allows the PUD the right to erect, construct, repair, replace, maintain and use poles, wires, crossarms and braces, guy stubs and anchors, and all other connections, fastenings, appliances and fixtures necessary or proper in the construction, maintenance and use of electric distribution and/or transmission lines over, along, across and upon the easement and right-of-way area together with wires for telephone puposes, and to make the clearing necessary for these activites. Line reliability and patrol of this circuit is vital as it serves 810 customers in the vicinity.

#### Duck Lake

Duck Lake has historically been impacted by invasive Brazilian elodea and Eurasian water-milfoil. In 1994, an aquatic plant management plan was developed for Duck Lake, which involved mechanical harvesting and hand removal of aquatic plants, and grass carp planting. However, invasive aquatic plant species, particularly Brazilian elodea, continued to dominate the plant community to the exclusion of other submerged species (NW Aquatic Eco-Systems 2010). In an effort to eradicate Brazilian elodea, Duck Lake was treated with fluridone over eighteen months during 2007 and 2008. During a subsequent survey of the lake in 2009, Brazilian elodea

was not observed (NW Aquatic Eco-Systems 2010). In 2011, spot treatments to control aquatic plants within the Duck Lake canals were performed.

According to the Duck Lake Waterways 2009 Noxious Weed Control Project, after the 2007/2008 fluridone treatment the long-term control approach shifted from chemical control to less expensive biological controls, such as grass carp. In 2009 Lake Minard and the canals southwest of Duck Lake were stocked with grass carp. Although the grass carp stocked in 2009 were not released into Duck Lake, in 2011 ELS biologists observed numerous grass carp within the lake and there was a notable absence of aquatic bed vegetation. Currently, grass carp appear to be providing a measure of biological aquatic plant control within the proposed Bank Site lacustrine fringe wetlands.

Due to the high cost of treating an entire system, it is unlikely that widespread chemical treatments, such as implemented in 2007 and 2008, will be implemented in the foreseeable future. Spot treatments, such as the ones performed within the canals in 2011, applied within specific areas are more likely to take place. Prior to using chemical treatments within the bank boundary, the City of Ocean Shores will obtain IRT approval. The City of Ocean Shores also uses a mechanical harvester for aquatic plant control. On-going monitoring for Brazilian elodea will reduce the need for system wide chemical treatments as widespread colonization can be avoided through early detection and control of small populations or individuals.

### Wildlife

Many species have been observed utilizing the greater Bank Site, including deer, coyote, bear, and numerous species of birds. The entire Bank site meets the definition of a WDFW Priority Habitat biodiversity areas and corridors, as the site is an area of habitat that is relatively important to various species of native fish and wildlife. WDFW Priority Habitat biodiversity areas and corridors, Category 1.b, is defined as “The area is within a city or an urban growth area (UGA) and contains habitat that is valuable to fish or wildlife and is mostly comprised of native vegetation. Relative to other vegetated areas in the same city or UGA, the mapped area is vertically diverse (e.g., multiple canopy layers, snags, or downed wood), and horizontally diverse (e.g., contains a mosaic of native habitats). These areas may have more limited wildlife functions than other priority habitat areas due to the general nature and constraints of these sites in that they are often isolated or surrounded by highly urbanized lands.”

The open water areas of Duck Lake within the Bank site provide foraging areas for birds such as ducks, herons, swallows, and mammals such as beavers, otters and mink, and insectivores such as bats. The site’s uplands adjacent to the lake provide cover and nesting/denning habitat for the species that utilize open water for foraging. The relatively undisturbed uplands also foster connectivity by providing wildlife with corridors to other various high quality habitats within the Bank Site, and possibly the peninsula. These corridors are valuable for wildlife accessing areas of wetland or upland necessary to meet their daily, seasonal, or life-cycle needs that require different habitat types. The corridors are also necessary to allow interbreeding to maintain genetic variability between subpopulations that occupy different areas of the Bank Site, and potentially the peninsula.

Ocean Shores is located within the Pacific flyway, thus the relatively intact Bank site provides critical undeveloped “stopover” habitat for migratory birds. Birds that occur, or have been

observed, within the Bank site, including federal and state listed bird species, are documented by the Grays Harbor Audubon (2006) and/or within the *Prospectus for the City of Ocean Shores Wetland Mitigation Bank*, and *City of Ocean Shores Wetland Mitigation Bank Additional Information Packet* (City of Ocean Shores 2010 and 2011). The following is a table of bird species that occur, or have been observed, within the Bank site, with current Federal or State listing status:

**Table A-2: Observed bird species & current Federal and State listing status**

Species	State Status	Federal Status
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	State Sensitive	Species of Concern
Brandt's cormorant ( <i>Phalacrocorax penicillatus</i> )	State Candidate	None
Common loon ( <i>Gavia immer</i> )	State Sensitive	None
Great blue heron ( <i>Ardea herodias</i> )	State Monitored	None
Peregrine falcon ( <i>Falco peregrines</i> )	State Sensitive	Species of Concern
Pileated woodpecker ( <i>Dryocopus pileatus</i> )	State Candidate	None
Western grebe ( <i>Aechmophorus occidentalis</i> )	State Candidate	None

Many of the bird species that occur or have been observed within the site are wetland/upland associated species that use various habitats for foraging, nesting, roosting, perching, and breeding. The Peregrine falcon, a State Sensitive and Federal Species of Concern observed within the Bank site, is an example of a species that is both wetland and upland associated. According to the *Wildlife-Habitat Relationships in Oregon and Washington* (Johnson and O'Neil 2001), the following habitats that occur within the greater Bank site are associated with Peregrine falcons foraging activities; open water, westside riparian-wetlands, and westside lowlands conifer-hardwood forest. There are other numerous wetland/upland associated wildlife species that occur within the Bank site that are not federal or state listed species.

### A.3.3 Wetland Functional Assessment

Using the *Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington* (credit/debit or C/D tool) (Hruby 2011), the Bank site wetlands were scored based on the rating of the following three functions; water quality, hydrologic and habitat, as indicated by the potential of the site to provide the function (site potential), the potential of the landscape to maintain the function at the site scale (landscape potential) and the value each function may have for society (rating of value). A score based on the ratings of site potential, landscape potential and value for each of the three functions was then calculated, with the scores potentially ranging from 3 (lowest rating) to 9 (highest rating).

#### A.3.3.1 Depressional Mosaic Wetland Functions

The 46.11 acres of wetland mosaic area within the West portion of the site contains Category I Depressional wetlands. The depressional wetlands provide a medium level of water quality functions (6 points), a medium-high level of hydrologic functions (7 points), and medium level of habitat functions (6 points). It also is rated by the *Washington State Wetland Rating System for Western Washington* (Hruby 2006) as a Category I wetland based on Special Characteristics, as the wetland contains over 1 acre of old-growth forest/mature forest.

#### Water Quality

The Depressional mosaic wetland within the Bank site has a medium level of site potential for water quality improvement. The wetland unit consists of depressions with no outlet(s), allowing



pollutants to be retained within the wetland unit, and persistent, ungrazed plant species cover over 95 percent of the wetland unit that can function to filter out pollutants. The wetland's landscape potential is also medium due to more than 10 percent of the surrounding area consisting of residential, commercial, and urban land use, and septic systems being located within 250 feet of the wetland unit. The wetland unit has a medium level of water quality improvement that is valuable to society as it is in a subbasin where water quality is an issue in some type of aquatic resource (wetland unit is in the same hydrologic unit as Grays Harbor Bay, which is on the 303d list). The resulting overall score for the wetland unit improving water quality functions is medium (6 points).

### Hydrologic Functions

The Depressional mosaic wetland has a medium level of potential to reduce flooding and erosion, as the wetlands within the unit are located in depressions with no outlet(s), provide at least 0.5 feet of flood storage during wet periods, and the area of the contributing basin is 100 times the area of the wetland unit. These characteristics reduce flooding (depressions, flood storage) and peak flows (area of contributing basin). The wetland has a medium level of landscape potential to support hydrologic functions at the site, due to more than 10 percent of the surrounding area consisting of residential, commercial, and urban land use, and more than 25 percent of the contributing basin of the wetland unit being covered with intensive human land uses. The wetland has a high level of hydrologic function that is valuable to society, as the wetland captures surface water that would otherwise flow down gradient of the unit. The resulting overall score for the wetland improving hydrologic function is medium-high (7 points).

### Habitat Functions

The analysis of habitat functions provided within the Depressional mosaic wetland yielded a medium score for the site's potential for habitat, reflecting the moderate level of habitat interspersion, and a number of special habitat features (large, downed woody debris, standing snags, and less than 25 percent cover of invasive plants). The potential for the landscape to support habitat is rated as low, as within 1 kilometer (km) of the wetland unit there is relatively little undisturbed accessible habitat that abuts the unit, there is little undisturbed habitat within 1 kilometer (km) of the wetland unit, and over 50% of the area within 1 km of the unit is high intensity land use as defined by the credit/debit tool (Hruby 2011) (**Figure A-10, Credit/Debit Tool Map**). The wetland unit provides a high amount of habitat that is valuable to society. Using the credit/debit tool, the resulting overall score for habitat functions is medium (6 points).

Although analysis of habitat functions provided within the Depressional mosaic wetland yielded a medium score using the C/D tool, and the the potential for the landscape to support habitat was scored low, the Bank site is important refugia for peninsula wildlife. The Bank will preserve the the last remaining large tracts of land in the area, consisting of wetland habitats with a wide range of hydroperiods, and wetland and upland vegetation types that provide increased habitat niche availability, and corridors, for mammals, birds, waterfowl, fish, amphibians, reptiles, and invertebrates. Many species have been observed utilizing the greater Bank Site, including deer, coyote, bear, beaver, and numerous bird species. The site is necessary to wildlife for meeting their daily, seasonal, or life-cycle needs and therefore intrinsically valuable. The overall Bank site has a number of different hydroperiods that contribute to a diverse plant community structure that fosters increased wildlife habitat niche availability. Increased wildlife habitat niche availability provides more foraging opportunities, cover, nesting, roosting, and perching habitat

for birds, and foraging opportunities, cover, breeding and shelter habitat for mammals, reptiles, and amphibians.

### **A.3.3.2 Lacustrine Fringe Wetland Functions**

The Bank site contains 11.07 acres of Lacustrine wetlands, inclusive of the 100 foot buffer, that are located along Duck Lake adjacent to the Point, and the west and east portions of the site. These Lacustrine wetlands provide a medium-high level of water quality functions (7 points), a medium level of hydrologic functions (6 points), and medium level of habitat functions (6 points). It also is rated by the *Washington State Wetland Rating System for Western Washington* (Hruby 2006) as a Category II wetland.

#### Water Quality

The Lacustrine wetlands within the Bank site have a medium level of site potential for improving water quality, as two-thirds of the vegetated area of the wetland is covered with herbaceous plants which can filter out pollutants. The wetland's landscape potential to support water quality functions at the site is high due the lake being used by powerboats that can increase the amount of pollutants in the lake, and the lake has problems with algal bloom, indicating increased level of nutrients in the water. The wetland has a medium level of water quality improvement that is valuable to society as it is in a subbasin where water quality is an issue in some type of aquatic resource (wetland unit is in the same hydrologic unit as Grays Harbor Bay, which is on the 303d list). The resulting overall score for the wetlands ability to improving water quality functions is medium-high (7 points).

#### Hydrologic Functions

The Lacustrine wetlands have a low level of potential to reduce shoreline erosion, as three-quarters of distance along the shoreline the wetland vegetation is less than 33 feet wide, which reduces the potential for the vegetation to provide a physical barrier against erosion. The wetland has a medium level of landscape potential to support hydrologic functions at the site, as the lake is used by powerboats with more than five horsepower, and the fetch on the waterside of the lake is less than mile in distance. The wetlands have a high level of hydrologic functions that are valuable to society, as there is old growth/mature forests within 25 feet of the OHWM of the shore in the unit that could be protected from erosion by the Lacustrine wetlands. The resulting overall score for the wetland improving hydrologic function is medium (6 points).

#### Habitat Functions

The analysis of habitat functions provided within the Lacustrine wetlands yielded a medium score for the site's potential for habitat, reflecting the high level of habitat interspersion, and a number of special habitat features (the presence of undercut banks and overhanging vegetation, stable steep banks, structures for egg-laying amphibians, and less than 25 percent cover of invasive plants). The potential for the landscape to support habitat is rated as low, as within 1 kilometer (km) of the wetland unit there is relatively little undisturbed accessible habitat that abuts the unit, there is little undisturbed habitat within 1 kilometer (km) of the wetland unit, and over 50% of the area within 1 km of the unit consists of high intensity land use as defined by the credit/debit tool (Hruby 2011) (**Figure A-10, Credit/Debit Tool Map**). The wetland unit provides a high amount of habitat that is valuable to society, as the site is a Priority Area for an individual WDFW Priority Species (Peregrine Falcon). The resulting overall score for habitat functions is medium (6 points).

Although analysis of habitat functions provided within the Lacustrine wetlands yielded a medium score using the C/D tool, and the potential for the landscape to support habitat scored low, the Bank site is important refugia for peninsula wildlife. The Bank will preserve the the last remaining large tracts of land in the area, consisting of wetland habitats with a wide range of hydroperiods, and wetland and upland vegetation types that provide increased habitat niche availability, and corridors, for mammals, birds, waterfowl, fish, amphibians, reptiles, and invertebrates. Many species have been observed utilizing the greater Bank Site, including deer, coyote, bear, beaver, and numerous bird species. The site is necessary to wildlife for meeting their daily, seasonal, or life-cycle needs and therefore intrinsically valuable. The overall Bank site has a number of different hydroperiods that contribute to a diverse plant community structure that fosters increased wildlife habitat niche availability. Increased wildlife habitat niche availability provides more foraging opportunities, cover, nesting, roosting, and perching habitat for birds, and foraging opportunities, cover, breeding and shelter habitat for mammals, reptiles, and amphibians.

The Duck Lake, and the Lacustrine wetlands within the lake, also provide habitat connectivity within the watershed by providing ecological linkages/connections between the various undisturbed wetland and upland habitats within the system. Many species feed and/or breed in wetlands, then spend time in adjacent upland habitats (or vice versa). For example, amphibians such as Pacific tree frogs (*Pseudacris regilla*) reside in uplands but require wetlands and open water for reproduction and early life cycle stages. Amphibians are often top predators in aquatic systems and can be important prey in terrestrial systems.

#### **A.4 Watershed Restoration Needs Met by Bank Site**

Instead of providing onsite mitigation on small lots with limited options of improving wetland function, protection, or compliance; watershed restoration needs in the area can be met by the preservation and enhancement of existing high-quality wetlands that are in danger of impacts from development. A mitigation bank that preserves high-quality wetlands can potentially offset unavoidable impacts to wetlands in the service area through the removal of impact risk. Important wetland functions can be maintained, and unique and rare mature wetland systems, such as forested wetlands, can be protected and allowed to mature further without risk of damage.

The Ocean Shores peninsula is located within a cataloged hydrological unit (hydrologic unit code (HUC) 12-171001050107) that includes the majority of peninsula. The peninsula is located within the western portion of the hydrological unit within the lowest hydraulic gradient, with the Bank site occurring within the lowest gradients. Duck Lake, the canal system, and other waterways within the City of Ocean Shores function as groundwater and surface water discharge areas that eventually discharge to Grays Harbor Bay through an overflow weir at the southeastern tip of the peninsula. Grays Harbor (Bay) is a 303d listed waterbody with a current total maximum daily load (TDML) in place to address water quality-issues stemming from dioxin and fecal coliform bacteria (Ecology 2011a; Ecology 2011b). Although not currently 303d listed, Duck Lake is considered a Category 4C impaired water body by the Ecology due to the presence of the invasive exotic aquatic species Brazilian elodea, and Eurasian water-milfoil (Ecology 2012). Runoff into Duck Lake, the canal system, and other waterways within the City

of Ocean Shores contributes to nutrient loads that impact water quality and cause dense algal blooms (Caromile, Jackson and Meyer 2000).

The Bank site will preserve high quality Category I wetlands, Priority Habitat uplands, Category II wetlands associated with Duck Lake, and uplands that provide habitat for priority species. Preservation of the Bank site's undeveloped wetland and upland habitats positively benefit the surrounding environment, which are already impacted by moderately high intensity development, by improving water quality, maintaining hydrological functions, and providing flood storage capacity and intact wildlife habitat.

The uplands within the Bank site buffer the on-site wetlands and also provide valuable hydrologic, and water quality, functions that maintain wetland water quality. Established forested vegetation slows stormwater sheet flows and significantly benefits the production, storage, and export of organic matter within the overall site, including the wetlands. By preserving the site's intact vegetated uplands and wetlands, the ability of the overall Bank site to provide hydrologic and water quality functions that disperse stormwater runoff and provide water treatment opportunities will be protected.

Due to the presence of Palustrine and Lacustrine wetlands, the Bank site has a number of different hydroperiods that contribute to a diverse plant community structure that fosters increased wildlife habitat niche availability. Increased wildlife habitat niche availability provides more foraging opportunities, cover, nesting, roosting, and perching habitat for birds, and foraging opportunities, cover, breeding and shelter habitat for mammals, reptiles, and amphibians. The Bank site uplands also increase onsite aquatic habitat value by maintaining aquatic ecosystem integrity. Increased habitat niche availability due to greater plant species richness, habitat interspersions, and habitat features fosters greater species diversity within the overall Bank site. As the site matures, the enhancement areas will provide a functional lift. Control and/or eradication, where possible, of terrestrial non-native invasive plant species, upland enhancement through planting of native species, and installation of nest boxes, will further benefit the site's overall habitat functions and connectivity.

It is worth consideration that uplands, especially those with well-developed and mature forested habitats, are equally at-risk for impacts and cumulative losses than wetlands. Preservation of the site will prevent commercial timber harvest and development of the old-growth/mature forest habitat located within the western and eastern portions of the site, and will allow the second growth within the Point to mature. Because many of the trees are located in uplands, no protective wetland regulations apply to them. Furthermore, we know that forest practice rules allow logging, in many instances, within wetlands. Such harvest threatens the integrity of the natural ecosystem on this site and the interspersions of habitats between wetland and upland. Forests capture precipitation, filter, retain, and store water, and regulate levels and timing of runoff, and improve water quality by trapping pollutants before they reach streams and aquifers. Flood damage is reduced by forests through storing flood waters, and reducing and slowing flooding. Forests accumulate organic matter, and prevent soil erosion, and forest biota produce oxygen, and help maintain good air quality. Forests also provide habitat for flora and fauna.

The Bank Sponsor has discussed with the IRT the potential of phasing in of credit generating activities, that if adopted, would be included as addendums to the MBI (ELS 2011, ELS 2012,

IRT 2011 and IRT 2012). The following are the possible future credit generating activities that have been discussed with the IRT:

- Wetland re-establishment and enhancement (to include placement of large woody debris) within the Bank site along the dredged shorelines of Duck Lake
- Environmental Education (with Bank site access) that focuses on the Bank site
- Inclusion within the Bank of the Duck Lake islands

The wetland re-establishment component of the Phase II Bank activities would provide further ecological lift to the Bank site. Wetland re-establishment would consist of the development of sandfill pads within the Bank boundaries, along the dredged shorelines of Duck Lake. The sandfill pads would be surrounded by large woody debris (LWD) placed in clusters containing three to five pieces of logs with root wads and/or root wads placed strategically and secured along the Bank site lakeshore, with organic soil applied over the sandfill, and native emergent and scrub-shrub species planted within the organic soil applied over the sandfill.

Phase II wetland re-establishment would provide further ecological lift by increasing water quality and habitat functions. Wetland re-establishment within Duck Lake would also provide increased habitat connectivity within the Bank site by fostering increased ecological linkages/connections between the various wetland and upland habitats within the site. Many species feed and/or breed in wetlands, then spend time in adjacent upland habitats (or vice versa). For example, amphibians such as Pacific tree frogs reside in uplands but require wetlands and open water for reproduction and early life cycle stages. Amphibians are often top predators in aquatic systems and can be important prey in terrestrial systems. LWD contributes to the food web through decomposition and by providing habitat for insects, thus increasing the food web for birds, amphibians, reptiles, and mammals. LWD also provides cover and shelter for amphibians, reptiles, and small mammals, basking areas for turtles, hunting perches for great blue heron, and nesting for waterfowl, muskrats, and beaver, in addition to providing a food substrate for fungi and invertebrates, which are consumed by vertebrates.

The focus of this Bank is to provide mitigation for projects within the service area that impact wetlands within the coastal plains south of Copalis Beach to the southern tip of the Ocean Shores Peninsula, and the coastal plains north of Westport down to Heather. With available offsite mitigation credit available at an approved bank, landowners can be encouraged by a simpler, less costly and time-consuming process of buying mitigation credits that will streamline permitting and compliance throughout the service area. The Bank site will provide the advantage of a larger mitigation area, which tends to be more successful and have greater functional lift, than many small fragmented mitigation sites. Onsite mitigation for impacts to wetlands from single-family residential projects, farming, and commercial development is often impractical due to limitations of property size and lot configuration. Onsite wetland mitigation within these lots can be inadequate to achieve functional replacement and may lack necessary buffers to mitigation areas. The potential for improving wetland functions in certain situations is also limited because of the higher development density, which leads to a high level of human presence and multiple cumulative impacts to each wetland, which can also lead to overall cumulative losses of wetlands and their functions. Use of a bank can increase compliance with wetland regulations and improve functional replacement of wetlands impacted by development. The long mitigation process (3 to 10 years or more), cost, and responsibility of mitigation implementation, maintenance, and

monitoring, can increase the rate of non-compliance as landowners may not follow through on their permittee-responsible mitigation also leading to cumulative losses of wetlands and their functions.

### **A.5 Ecological Appropriateness of Enhancement Design**

Phase I will consist of the enhancement of six areas within the Point which currently have a sparse cover of vegetation within the existing canopy of shore pine, which is the dominant vegetation within the Point (**Figure B-2, Enhancement Areas Detail Map**).

Enhancement will consist of species groupings of shore pine (*Pinus contorta*), Sitka spruce (*Picea sitchensis*), Western red cedar (*Thuja plicata*), and Pacific wax-myrtle (*Myrica californica*) within the six areas. These species should acclimate well in the drier environment found on the Point, and were selected for areas where tree cover was more sparse to add additional forest cover and to provide competition for any invasive species which may try to take hold. Sitka spruce is dominant on both the adjacent west and east properties, and therefore represent a larger proportion of the overall species mix. Western red cedar was also included in the enhancement area plantings, as this tree has largely been removed from the area, likely from previous logging activities. Plantings of this tree would compete relatively well within a sparse overstory of existing trees and shrubs. Western red cedar is typically well-represented in coastal forest areas, but does not occur regularly on this property. Replanting this species it will augment the forests return to a mixed overstory of coniferous trees typically found within a coastal forest.

Control and/or eradication, where possible, of terrestrial non-native invasive plant species, upland enhancement through planting of native species, and installation of nest boxes, will further benefit the site's overall habitat functions and connectivity.

Phase II wetland re-establishment within the dredged shorelines of Duck Lake would provide further ecological lift by increasing water quality functions and habitat functions. Re-establishment consists of sandfill pads, with organic soil applied over the sandfill, surrounded LWD placed in clusters containing three to five pieces of logs with root wads and/or root wads placed strategically and secured along the Bank site lakeshore, with native emergent and scrub-shrub species planted within the organic soil applied over the sandfill.

Phase II wetland re-establishment within Duck Lake would provide increased habitat connectivity within the Bank site by fostering increased ecological linkages/connections between the various wetland and upland habitats within the site. Many species feed and/or breed in wetlands, then spend time in adjacent upland habitats (or vice versa). For example, amphibians such as Pacific tree frogs reside in uplands but require wetlands and open water for reproduction and early life cycle stages. Amphibians are often top predators in aquatic systems and can be important prey in terrestrial systems. LWD contributes to the food web through decomposition and by providing habitat for insects, thus increasing the food web for birds, amphibians, reptiles, and mammals. LWD also provides cover and shelter for amphibians, reptiles, and small mammals, basking areas for turtles, hunting perches for great blue heron, and nesting for waterfowl, muskrats, and beaver, in addition to providing a food substrate for fungi and invertebrates, which are consumed by vertebrates.

## A.6 Rationale for Site Selection

In selecting the mitigation bank site, the ecological suitability, ecological sustainability and land use compatibility of the site was considered as required by the following criteria; the *Code of Federal Regulations*, Section 332.3 (33 CFR 332.3(d))(U.S. Army Corps of Engineers 2008a), *Washington Administrative Code* (WAC) 173-700-303, and *Selecting Wetland Mitigation Sites Using a Watershed Approach* (Ecology 2009).

At a watershed scale, the Bank site was analyzed using criteria in areas where watershed planning has not been done. The proposed site met the watershed scale criteria for potential and sustainability. In analyzing the suitability of the proposed individual Bank site, the major mitigation elements specific to the site and, the site scale functions offered by the mitigation site were identified, as well as the constraints/issues present within and immediately adjacent to the site. The following is a summary of the specific Bank site characteristics that outline the ecological suitability, ecological sustainability and land use compatibility of the site:

- In the same or comparable watershed situated on the peninsula between the Pacific Ocean and Grays Harbor Bay, and part of the large internal wetland swale(s) in the center of the peninsula.
- Except for a portion of the western buffer that extends within an adjacent parcel, the Bank site is primarily comprised of one contiguous parcel of relatively undisturbed land of sufficient size to provide suitable habitat and hydrologic functions beneficial to the overall environment.
- High quality Category I wetlands, and Category II wetlands with the potential for restoring or enhancing to Category I within 10 years, are located within the Bank site.
- High-quality upland habitat comprised of old growth and mature forest occurs within the Bank site boundaries.
- The Bank site contains areas at risk from development impacts, including timber harvest.

Except for a portion of the western buffer that extends within an adjacent parcel, the Bank site is primarily comprised of one contiguous parcel of relatively undisturbed land with a portion of Duck Lake located within the central Bank area. The Duck Lake portion of Bank site is a component of an approximately six mile-long north-south orientated swale between historic dunal formations that contains a series of lakes and wetlands. The Ocean Shores peninsula is located within a cataloged hydrological unit that includes the majority of peninsula, with the peninsula located within the most western portion of the hydrological unit within the lowest hydraulic gradient, with the Bank site occurring within the lowest gradients. The primary hydrologic sources for the Bank site wetlands are a shallow groundwater table and precipitation.

The Bank site will preserve high quality Category I wetlands and Priority Habitat uplands, Category II wetlands associated with Duck Lake, and uplands that provide habitat for priority species. Preservation of the Bank site's undeveloped wetland and upland habitats positively benefit the surrounding environment, which is already impacted by moderately high intensity development, by improving water quality, maintaining hydrological functions, and providing flood storage capacity and intact high quality wildlife habitat.

The Bank site is an important refuge for peninsula wildlife. The bank will preserve the largest intact, undeveloped tract of land within the City of Ocean Shores, consisting of wetland and upland habitat with a wide range of hydroperiods and vegetation types that provide habitats and corridors for mammals, birds, waterfowl, fish, amphibians, reptiles, and invertebrates. These habitats are valuable for wildlife accessing areas of wetland or upland necessary to meeting their daily, seasonal, or life-cycle needs that require different habitat types. It is also likely necessary to allow interbreeding between subpopulations that occupy different areas of the peninsula to maintain genetic variability.

Most of the currently preserved areas within, or near, the peninsula protect estuarine wetlands within Grays Harbor Bay. The only other substantial areas of freshwater wetlands within the peninsula that are preserved are interdunal wetland complexes within 200 feet of the ordinary high water mark (OHWM) of the Pacific Ocean, and in the northern portion of the peninsula, near Ocean City State Park (**Figure A-11, Ocean Shores Peninsula Landscape Map**).

The freshwater wetlands of the Ocean Shores peninsula have experienced significant development pressure from subdivisions, single-family development, and commercial development. As illustrated in **Figure A-11, Ocean Shores Peninsula Landscape Map**, the proposed Bank is the only significant wetland area that remains undeveloped and unprotected. When the proposed bank is established and legally preserved by a conservation easement, this last pristine area will be protected from the increasing development pressures on the peninsula.

#### **A.7 Bank Site Compliance with the Federal Rule on Mitigation for Using Preservation as Compensatory Mitigation (33 CFR 332.3(h))**

According to the Federal Rule on Mitigation, preservation may only be used for mitigation when the required criteria are met, as outlined in Title 33 of the *Code of Federal Regulations*, Section 332.3 (33 CFR 332.3(h)) (U.S. Army Corps of Engineers 2008b). These Criteria are enumerated below, with the rationale of how the Bank Site meets the requirements of the criteria following each individual criterion.

1. *The resources to be preserved provide important physical, chemical, or biological functions for the watershed and,*
2. *The resources to be preserved contribute significantly to the ecological sustainability of the watershed;*

Establishment of the Bank site will further protect the site's Category I Palustrine and Category II Lacustrine wetlands from development pressures within the City of Ocean Shores and contribute significantly to maintaining the ecological sustainability of the watershed. The Category I Palustrine and Category II Lacustrine wetlands within the Bank Site provide valuable hydrologic and water quality functions that maintain water quality within the watershed. Freshwater wetland areas within the city have experienced significant development pressure from subdivisions, single-family development, and commercial development. The Bank site is also an important refugia for peninsula wildlife. The Bank site's Category I Palustrine and Category II Lacustrine wetlands provide habitat connectivity within the watershed, and possibly the peninsula, by providing ecological linkages/connections between the various wetland and undisturbed upland habitats within the system. Many species feed and/or breed in wetlands, then



spend time in adjacent upland habitats (or vice versa). For example, amphibians such as Pacific tree frogs reside in uplands but require wetlands and open water for reproduction and early life cycle stages. Amphibians are often top predators in aquatic systems and can be important prey in terrestrial systems.

The Bank site's Category I wetlands contain two separate conditions defined as Special Characteristics by the *Western Washington Wetland Rating System* (Hruby 2006). These Special Characteristics (Old Growth/Mature Forest, and Biodiversity Areas and Corridors) define the Bank site as having a biological importance above and beyond the functions evaluated solely by the water quality, hydrologic, and habitat ratings. Over sixty acres of old growth/mature forest is found in the of the west portion of the Bank site that is characterized by large Sitka spruce trees interspersed with western hemlock, with dbh widths ranging from 32- to 52-inches. The low elevations of the west portion of the Bank site are characterized by a Category I wetland mosaic forested with mature large Pacific crabapple dominant within the overstory and old-growth Sitka spruce and large red alder also commonly occurring. Over six acres of mature forest is found in the east portion of the Bank site and is characterized by Sitka spruce with dbh widths ranging from 25- to 30-inches. Established forested vegetation buffers the adjacent wetlands from further disturbance and provide important hydrologic and water quality functions such as stormwater runoff dispersal and filtering/water treatment. The site's forested vegetation also significantly benefits the production, storage, and export of organic matter within adjacent wetlands.

Preservation of the Point will foster increased species and habitat complexity within the watershed due to the Point's unique topography and position within the watershed. The Point is one of the last remaining undeveloped areas along Duck Lake other than the western and eastern portions of the site and is comprised of overlapping wetland, riparian and upland habitats that provide important functions within the watershed and the overall Bank site. The Lacustrine wetlands that occur along the Point penetrate further into Point's interior than the Lacustrine wetlands that occur within the the western and eastern portions of the site, and the slope down to the edge of the lake is not as steep as it is within the other Bank areas adjacent to the lake. Thus, the Point has the greatest existing opportunity to provide habitat for wetland dependent species that occur within Duck Lake. Furthermore, the open water areas of Duck Lake adjacent to the Point provide foraging areas for birds such as ducks, herons, swallows, and mammals such as otters and mink, and insectivores such as bats. The Point provides cover and nesting/den habitat for the species that utilize the watershed's open water for foraging. The relatively undisturbed Point is also a wildlife corridor that provides connectivity to other various high quality habitats within the Bank Site, and possibly the peninsula. As Ocean Shores is located within the Pacific flyway, the Point also provides critical undeveloped "stopover" habitat for migratory birds.

The Point's upland area buffers the adjacent wetlands and provide an undisturbed corridor between the western and eastern portions of the site, increasing the overall Bank site's connectivity and habitat value. The Point's upland area buffers the adjacent wetlands within Duck Lake from further disturbance and provide valuable hydrologic and water quality functions that maintain wetland water quality. The forested vegetation within the Point slows stormwater sheet flows and significantly benefits the production, storage, and export of organic matter within the adjacent wetlands. Preserving the Point's intact forested uplands, and the intact Lacustrine wetland vegetation surrounding the Point, will protect the Bank site's ability to

provide important hydrologic and water quality functions such as stormwater runoff dispersal and filtering/water treatment. The ability to provide hydrologic and water quality functions will become increasingly important as the environs surrounding the Bank site are potentially further developed.

3. *The resources are under threat of destruction or adverse modifications;*

The old growth/mature forested habitat within the Bank site is at risk from timber harvesting for saw logs and pulpwood, selective timber harvest in wetlands, and is also at risk from development. Clearcut timber harvesting for saw logs and pulpwood could occur within the Bank site's uplands, and selective timber harvest could occur within the Category I wetland. It is worth consideration that uplands, especially those with well-developed old growth/mature forested habitats, are actually equally at-risk for impacts and cumulative losses than wetlands.

Currently, the primary Bank site consists of one tax lot with a portion of the site's 100-foot buffer to the west within another tax lot. In accordance with the current R-1 residential zoning, the site could be developed into numerous lots with a minimum lot size of 7,200 square feet. There is ample upland area within the western, eastern, and north-central portions of the Bank site to facilitate development of residential properties. The entire Bank site has been proposed for subdivision into 133 lots with a golf course proposed in the area where the Category I wetlands are located (Radius Development Rendition 1998).

The Point has been at risk for development as far back as 1998, when it was first proposed for division into 21 lots as part of an overall radius development that included the entire Weatherwax ownership (See Radius Development Rendition of Point – Other Parcels circa 1998 figure). In 2007, the Point was proposed for division into as many as 26 individual lots, which would be acceptable under its current R-1 residential zoning which allows for a minimum lot size of 7,200 square feet (*Summary Appraisal Report of the Point of the Weatherwax Property*, Twin Harbor Appraisal Service, Inc. 2007). The intent to develop the point was formally put into writing in September of 2007, when Resolution 572 was passed by the Ocean Shores City Council (See City Council of Ocean Shores Resolution No. 572). The resolution was put forth by the City Council following public forums and public discussions regarding the future use of the Point. It was City Council's decision through the resolution to surplus and sell the point at the fair market value of \$2,350,000 established by the independent appraisal performed in July of 2007 by Twin Harbor Appraisal Service, Inc. The resolution authorizes the City Manager to take all steps necessary to advertise the Point for sale through public advertising and request for proposals. As of 2012, Resolution 572 is still in place and could be acted upon by the City of Ocean Shores if deemed appropriate. Inclusion of the Point within the Bank site would remove the risk of development proposed through the Resolution.

Increased residential areas adjacent to Duck Lake with associated homes, driveways, garages, and outbuildings will impact wetland functions by increasing impervious surfaces that produce contaminated stormwater runoff, introducing or increasing runoff of residential lawn and garden pesticide and fertilizer, and introducing or increasing domesticated animal waste. Wildlife within the wetlands will experience increased noise and light, as well as the presence of humans and pets. Additionally, due to the proximity of the lake, numerous boat docks within/along the lake's Lacustrine wetlands would likely be constructed, which would cause further wetland disturbance

and habitat fragmentation, further impacting the wetlands habitat functions and the overall ecological function of the watershed. Opportunities for future wetland re-establishment within the bay between the Point and western portion of the site will be also be lost.

4. *The preserved site will be permanently protected through an appropriate real estate or other legal instrument (e.g., easement, title transfer to state resource agency or land trust).*

A conservation easement, which will permanently protect the Bank site, will be approved, initiated, and recorded pursuant to Article III.D of this Instrument, and Section G.1 of Appendix G.

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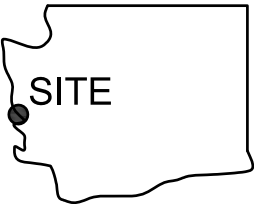
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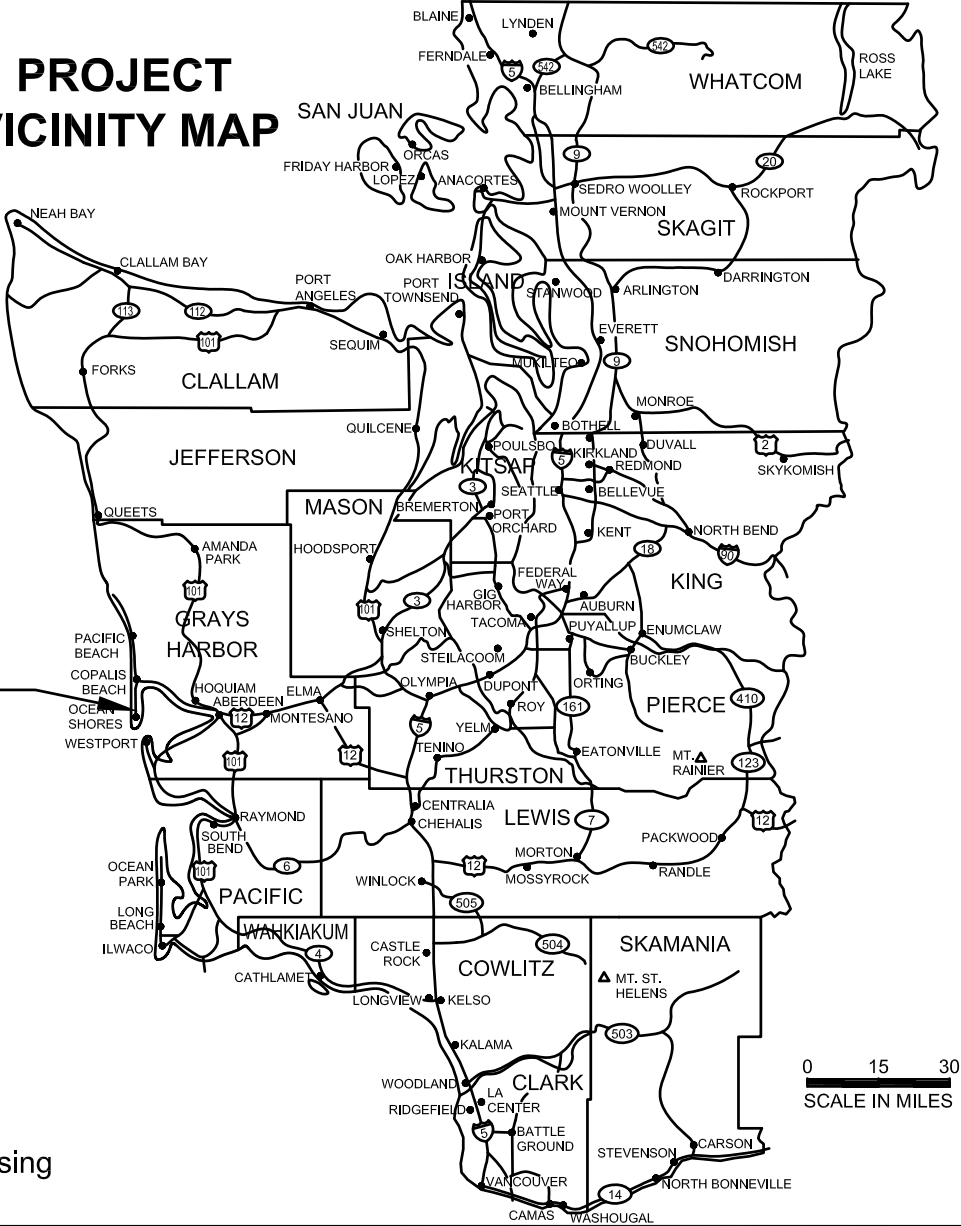
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NOTE:

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MAPTECH Inc., Terrain Navigator Pro software.

PROJECT  
VICINITY MAP

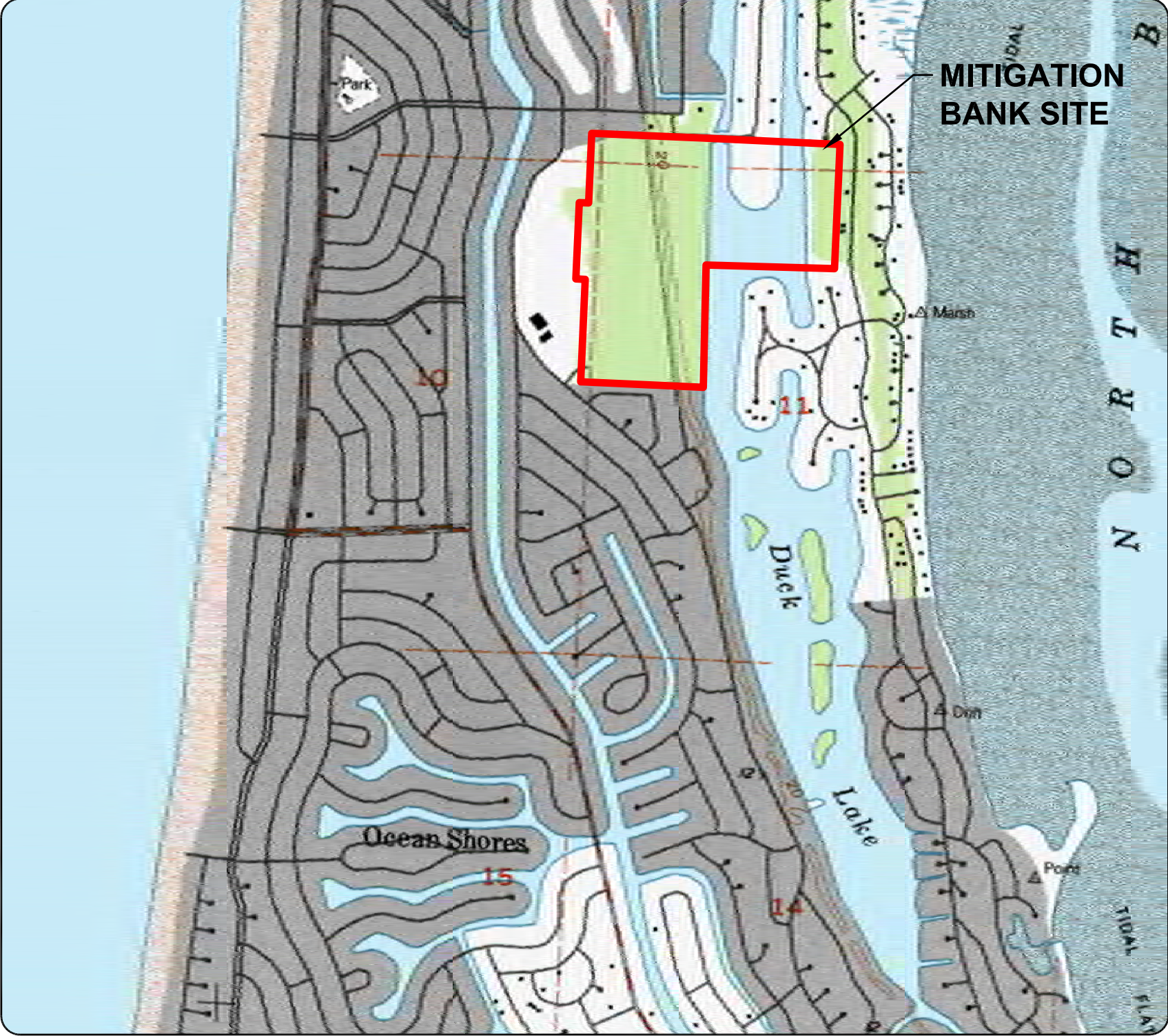
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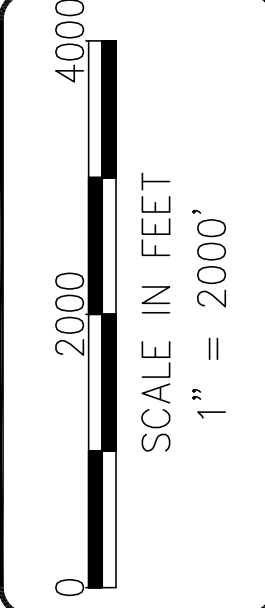
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Figure A-1  
Vicinity Map  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.

DATE: 8/31/15  
DWN: JKJ  
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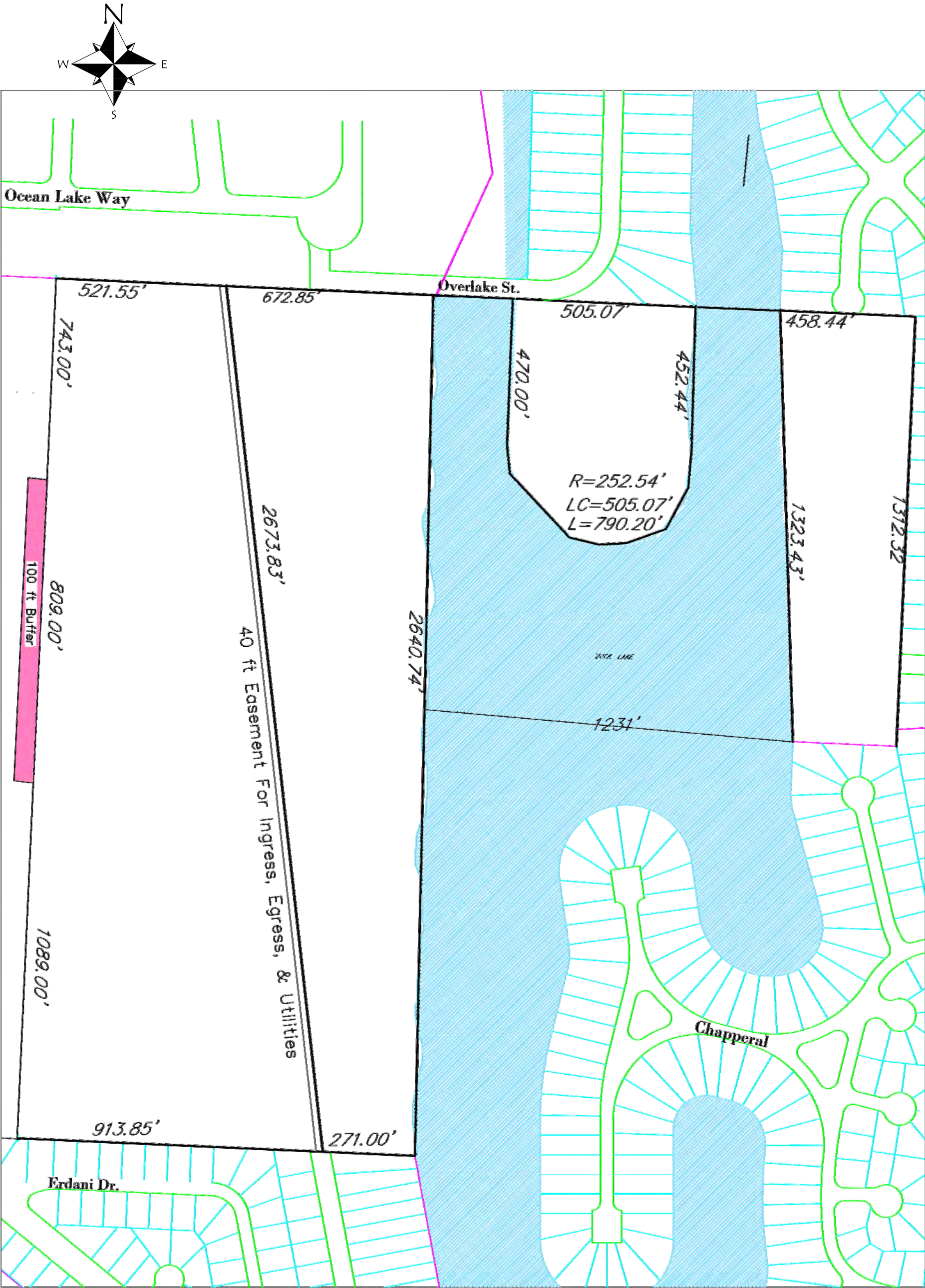


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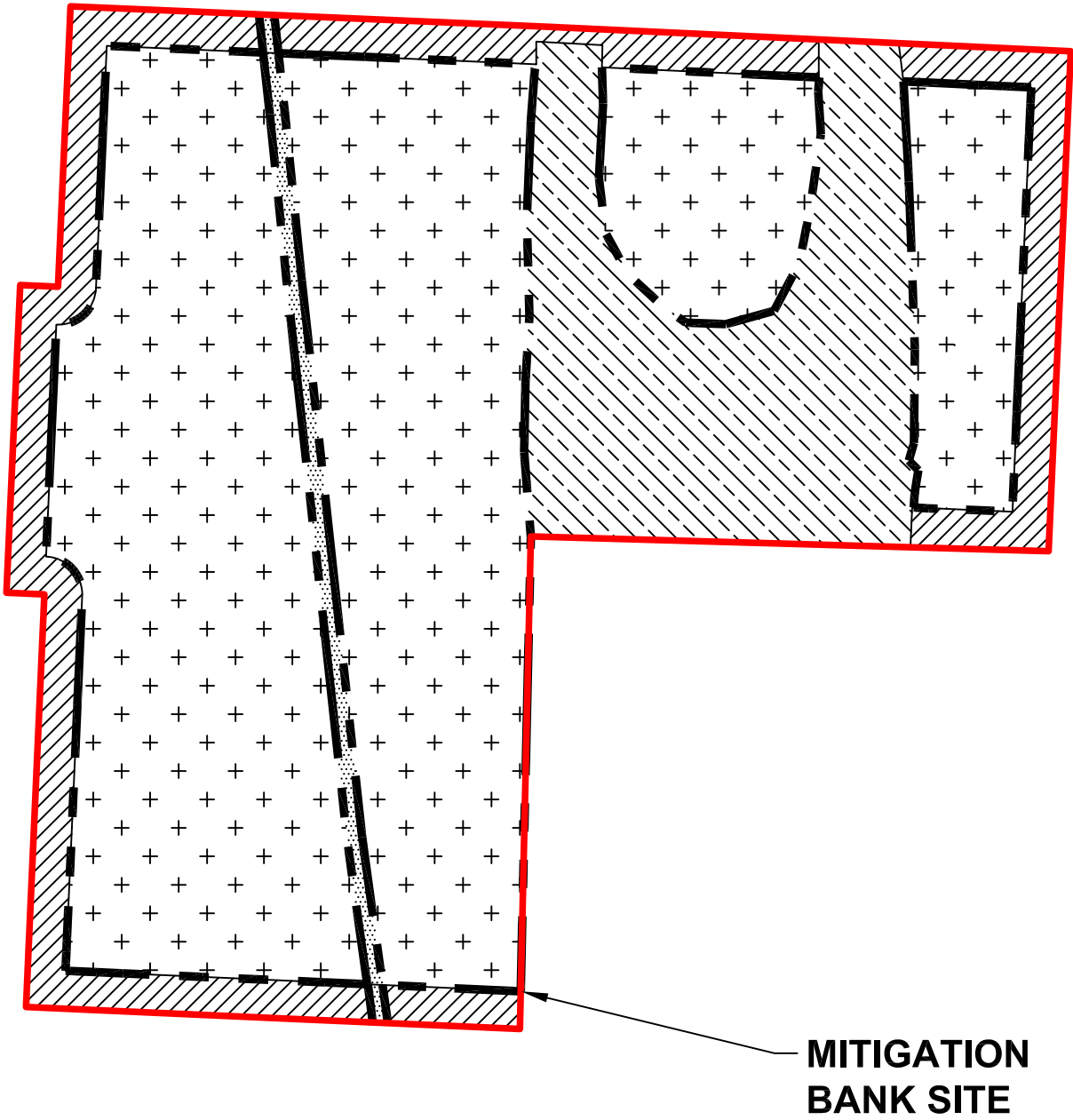
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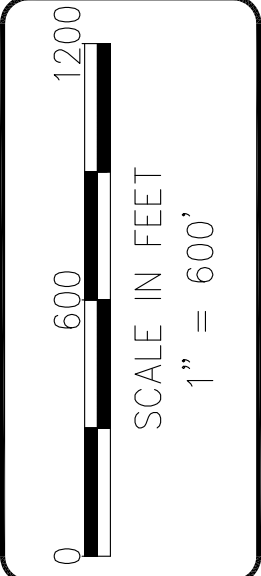
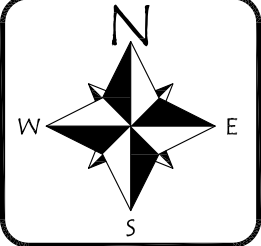
Figure A-2  
SITE SURVEY  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Rang 12W, W.M.






**LEGEND:**

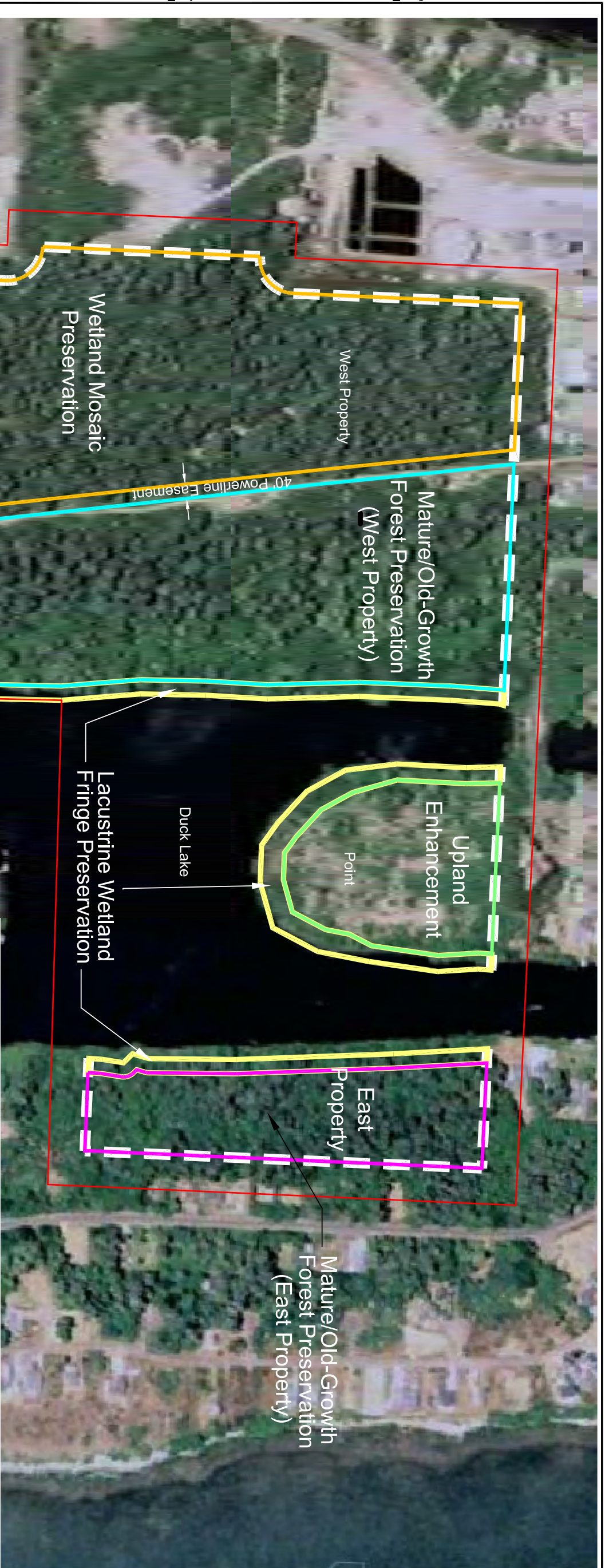
-  Mitigation Bank Site Boundary (121.86 acres) (Includes Portion of Duck Lake)
-  Bank Buffer (19.37 acres)
-  Credit Generation Area (84.38 acres)
-  40' Powerline Easement (2.45 acres)
-  Duck Lake (15.66 acres)



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UPDATE: COS  
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**Figure A-3**  
**MITIGATION AREA SITE MAP**  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.



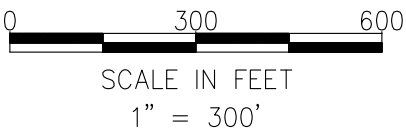
Bank Areas	Area (acres)
Wetland Mosaic Preservation	46.11
Mature/Old-Growth Forest Preservation (West Property)	32.60
Mature Forest Preservation (East Property)	7.16
Lacustrine Wetland Fringe Preservation	11.07
Upland Enhancement	6.81
Duck Lake	15.66
Power Line Easement	2.45
<b>Total</b>	<b>121.86</b>

**LEGEND:**

Mitigation Bank Site

**NOTE(S):**

1. Aerial photograph provided by Google Earth™.



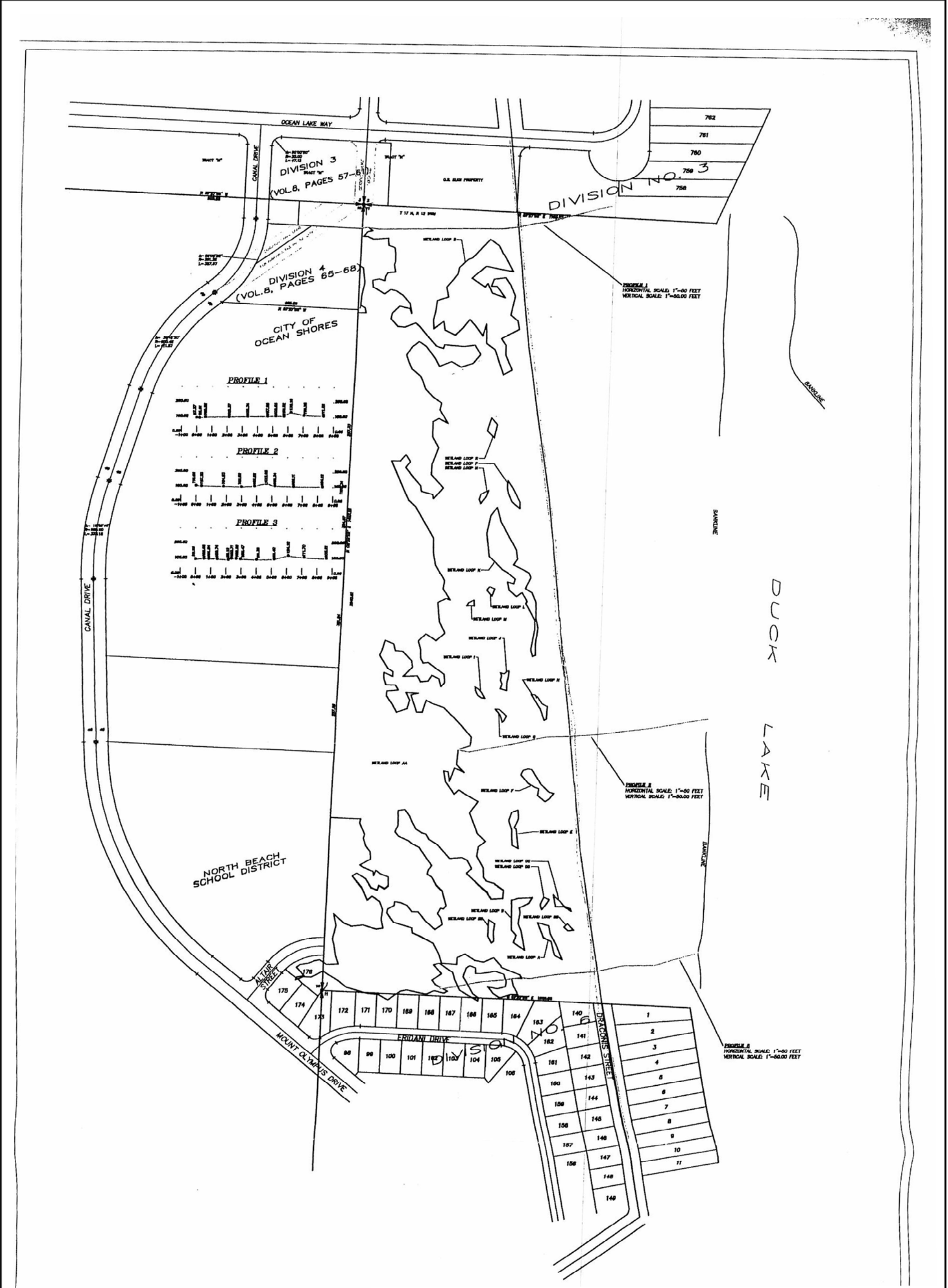
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Figure A-4  
EXISTING CONDITIONS  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.





**MAP SOURCE:**  
JURISDICTIONAL WETLAND ANALYSIS - WEATHERWAX PROPERTY, PREPARED BY AMEC  
EARTH & ENVIRONMENTAL, INC., FEBRUARY 27, 2006, REVISED SEPTEMBER 12, 2007.

**Figure A-5**  
EXISTING MATURE FORESTED CATEGORY 1 WETLAND MOSAIC  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.

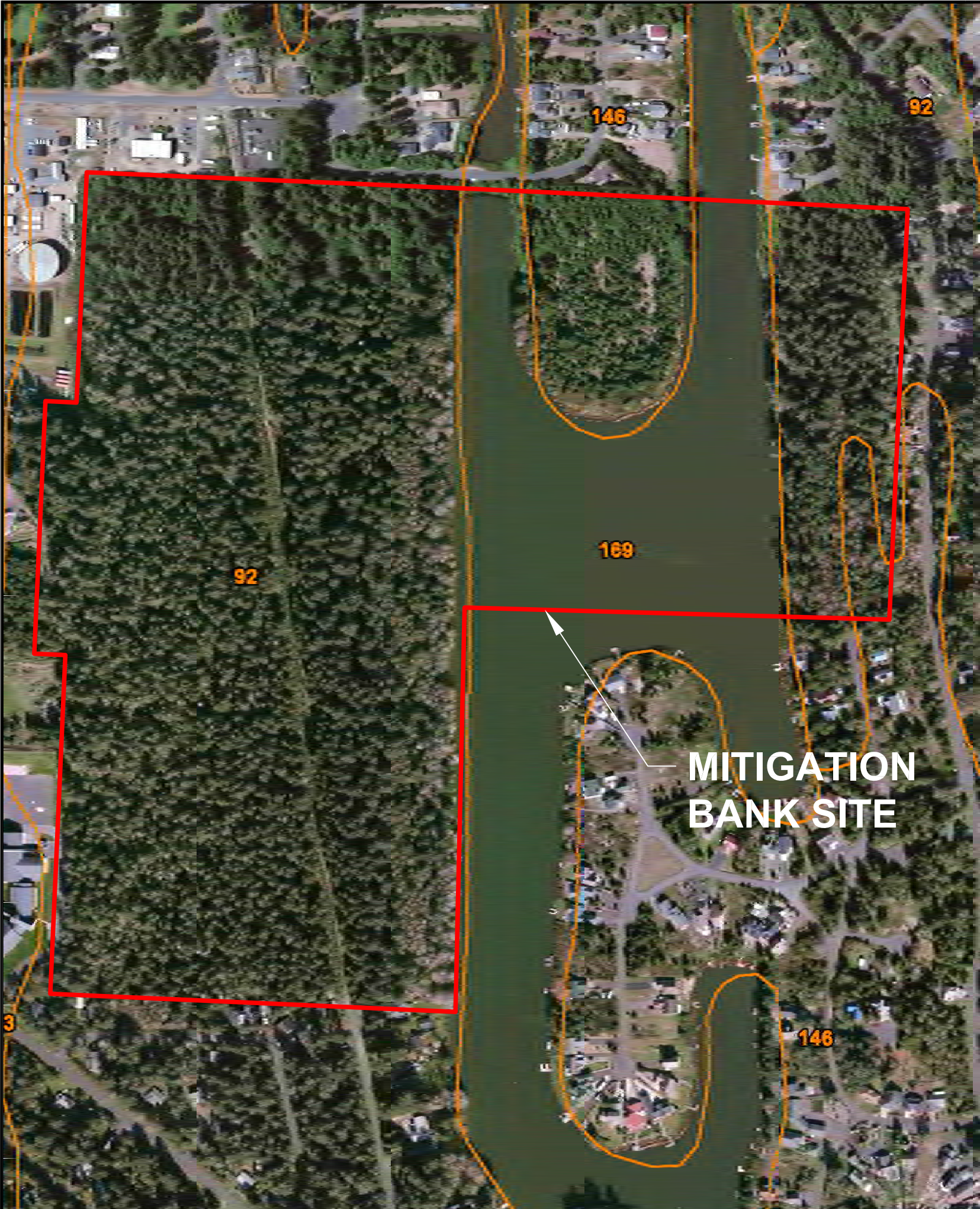
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PROJECT NO: 1808.02

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1" = 300'

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**LEGEND:**

- 92** Netarts fine sand, 3 to 12 percent slopes. Hydric.  
**146** Udipsammments, level.  
**169** Water.


**NOTE(S):**

1. Map provided on-line by NRCS at web address:  
<http://websoilsurvey.nrcs.usda.gov/app/>

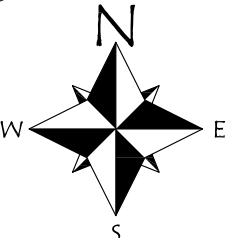
**NOTE:** Map provided by U.S.D.A. Soil Conservation Service,  
*Soil Survey of Grays Harbor County Area, Washington.*

Figure A-6  
SOIL SURVEY MAP  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.

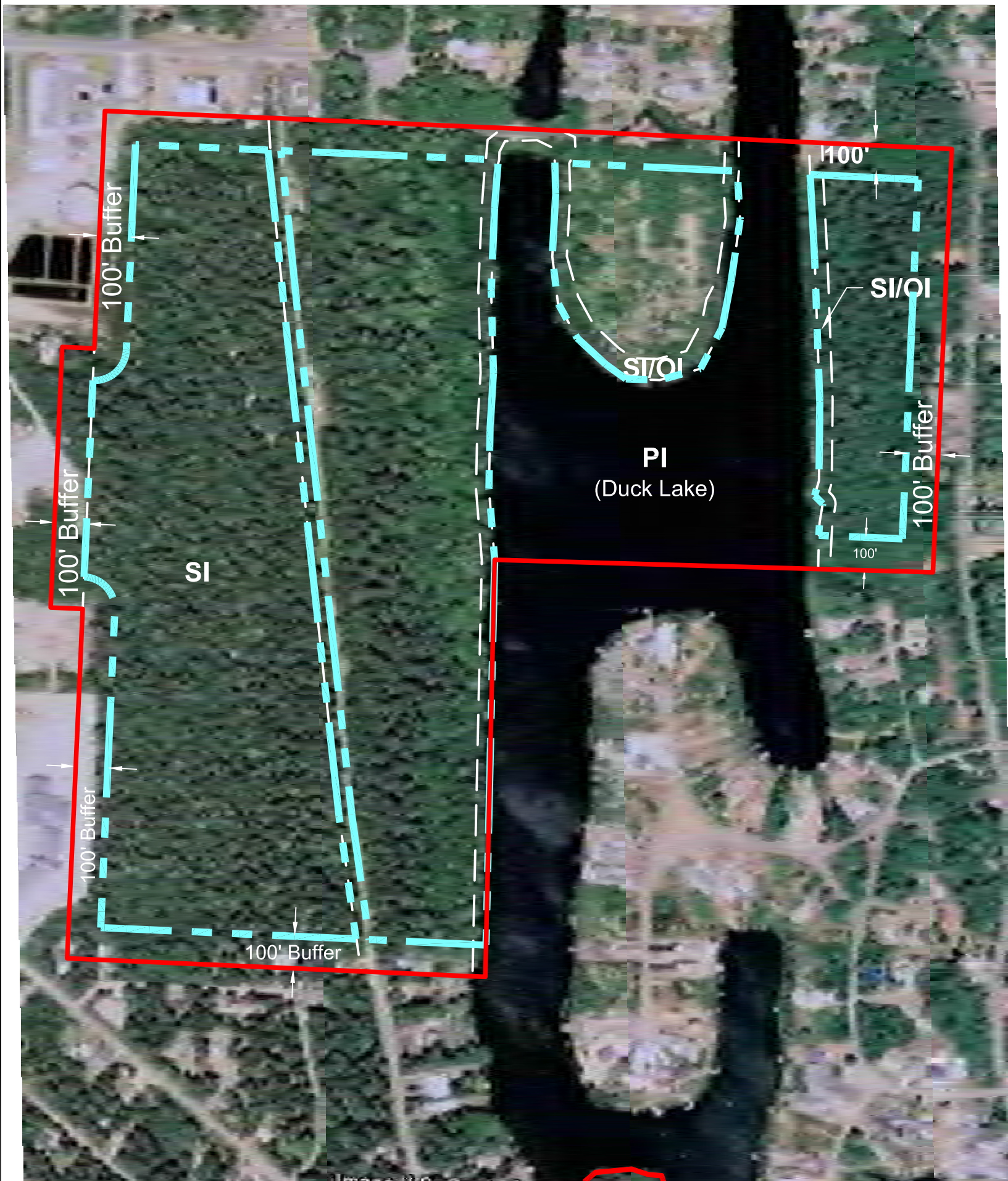
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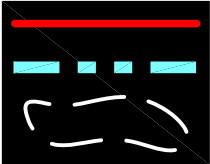
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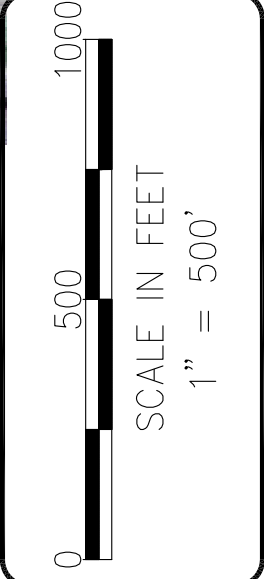
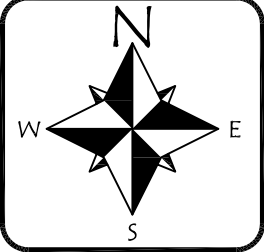
**LEGEND:**




- Mitigation Bank Site Boundary
- Buffer
- Hydroperiod
  - PI- Permanently Inundated
  - SI- Seasonally Inundated
  - OI- Occasionally Inundated

**NOTE(S):**

- Base map and 2005 orthographic photo from Grays Harbor County GIS Department.



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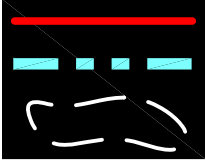
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**Figure A-7**  
**HYDROPERIODS**  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.





**LEGEND:**



- Mitigation Bank Site Boundary
- Buffer
- Cowardin Vegetation Class
- PFO- Palustrine Forested Wetland
  - LT EM/SS- Lacustrine Littoral Emergent/Scrub-shrub Wetland
  - LT EM- Lacustrine Littoral Emergent Wetland
  - LT AB/LM- Lacustrine Littoral Aquatic Bed/Limnetic Wetland
  - FO- Forested Upland
  - SS- Scrub-shrub Upland

**NOTE(S):**

1. Base map and 2005 orthographic photo from Grays Harbor County GIS Department.

**Figure A-8**

**COWARDIN VEGETATION CLASSES**

Weatherwax Mitigation Bank

City of Ocean Shores

City of Ocean Shores, Grays Harbor County, Washington

Sections 2 & 11, Township 17N, Range 12W, W.M.

DATE: 2/25/15

DWN: JKJ


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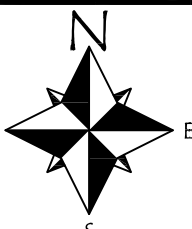
Longview, WA 98632

Phone: (360) 578-1371 Fax: (360) 414-9305

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SCALE IN FEET

1" = 500'







**LEGEND:**

- Maintained Trail
- Trail Closure

Trail Segment	Distance in Linear Feet
A	2,597.15
B	2,417.14
C	410.29
E	938.53
F	183.53
G	274.11
H	89.78
Total	6910.53
D	361.62
I	934.49
J	556.29
K	524.21
L	371.90
Total	2,748.51

**NOTE(S):**

1. Aerial photograph (2006) provided by Google Earth™.



0 300 600

SCALE IN FEET

1" = 300'



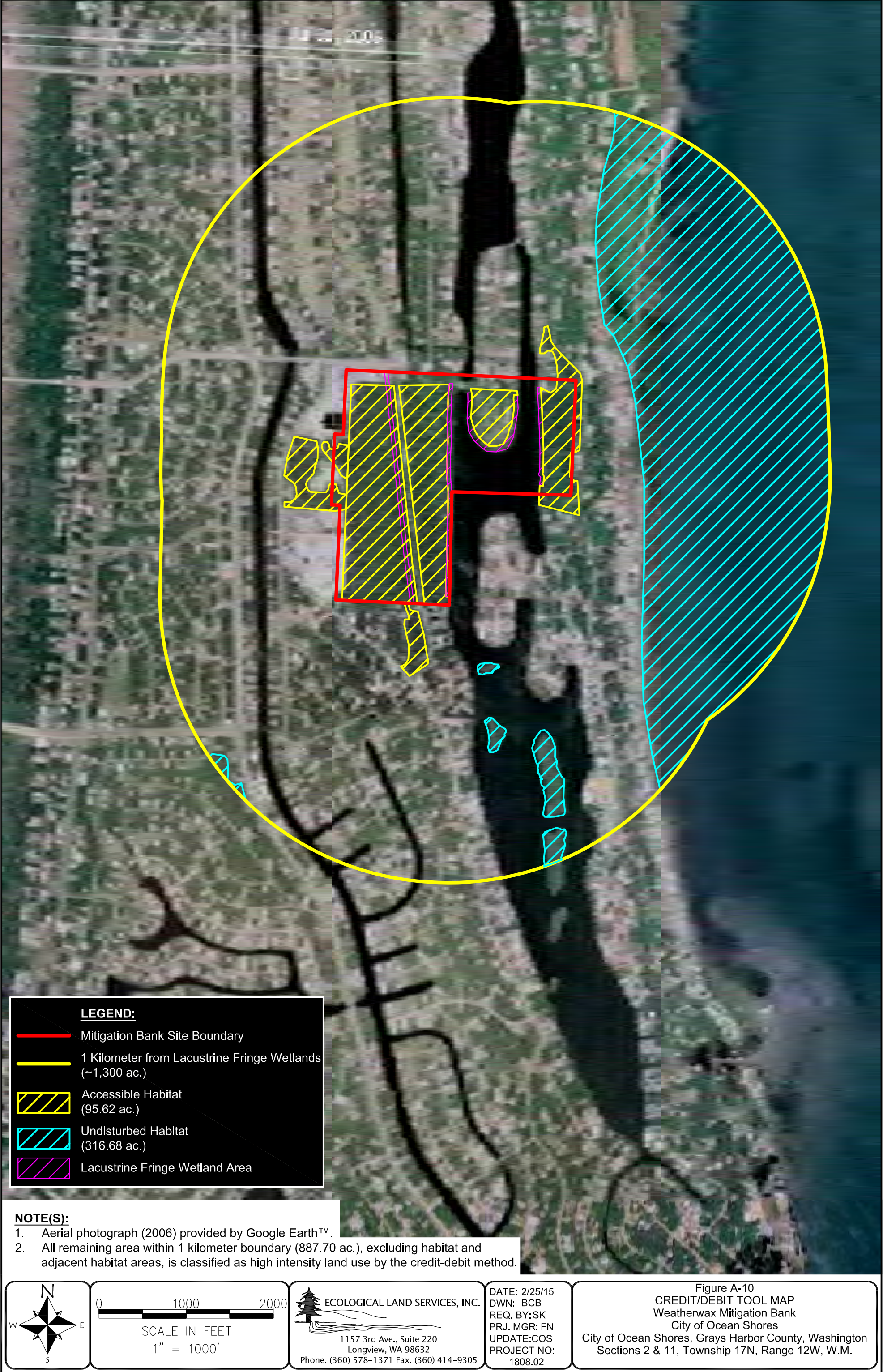
ECOLOGICAL LAND SERVICES, INC.

1157 3rd Ave., Suite 220  
Longview, WA 98632  
Phone: (360) 578-1371 Fax: (360) 414-9305

DATE: 2/25/15  
DWN: BCB  
REQ. BY: SK  
PRJ. MGR: FN  
UPDATE: COS  
PROJECT NO: 1808.02

Figure A-9  
TRAIL SYSTEM MAP  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.



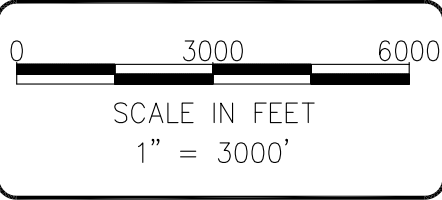
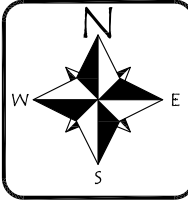






**NOTE(S):**

1. Aerial photograph (2006) provided by Google Earth™.



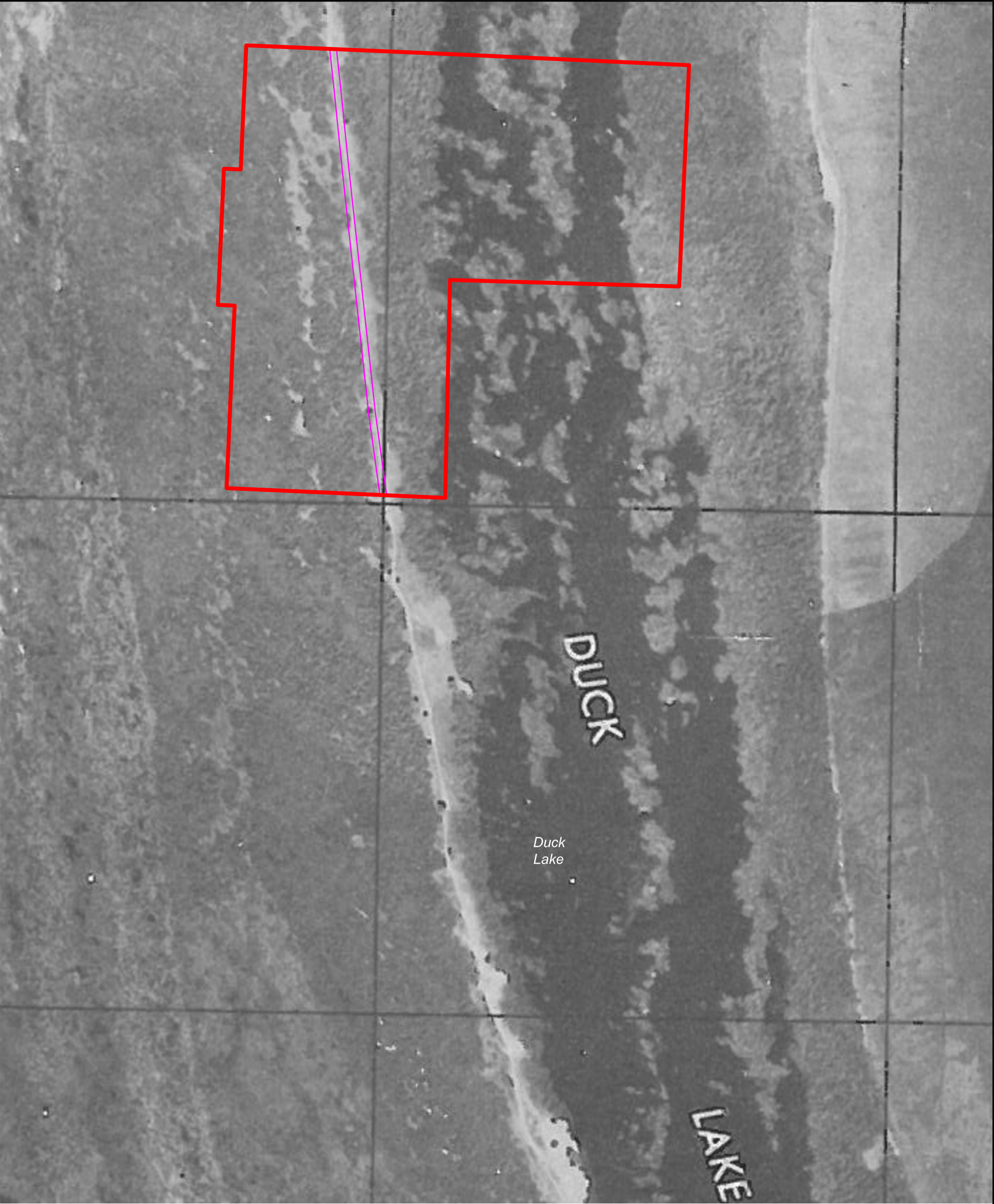


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Figure A-11  
OCEAN SHORES PENINSULA LANDSCAPE MAP  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.



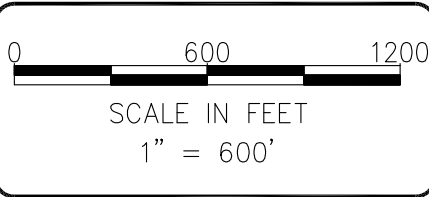
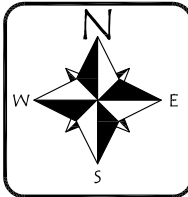


**LEGEND:**

— Mitigation Bank Site

**NOTE(S):**

- 1. Base map from Grays Harbor County GIS Department.
- 2. Aerial photograph provided by United States Army Corps of Engineers.





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1157 3rd Ave., Suite 220  
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DWN: JKJ  
REQ. BY: SK  
PRJ. MGR: FN  
UPDATE: COS  
PROJECT NO: 1808.02

Figure A-12  
1940S AERIAL PHOTOGRAPH  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.





**LEGEND:**

— Approximate Location of Mitigation Bank Site

**NOTE(S):**

1. Aerial photograph provided by Department of Ecology.

	Not to Scale	<p>ECOLOGICAL LAND SERVICES, INC. 1157 3rd Ave., Suite 220 Longview, WA 98632 Phone: (360) 578-1371 Fax: (360) 414-9305</p>	<p>DATE: 2/25/15 DWN: JKJ REQ. BY:SK PRJ. MGR: FN UPDATE: COS PROJECT NO: 1808.02</p>	<p>Figure A-13 1970S AERIAL PHOTOGRAPH Weatherwax Mitigation Bank City of Ocean Shores City of Ocean Shores, Grays Harbor County, Washington Sections 2 &amp; 11, Township 17N, Range 12W, W.M.</p>
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East Property Tree DBH Survey		
Tree Stand Number	DBH (Diameter at Breast Height)	Tree Species
1	27 inches	Sitka spruce ( <i>Picea sitchensis</i> )
1	32 inches	Sitka spruce ( <i>Picea sitchensis</i> )
1	24 inches	Sitka spruce ( <i>Picea sitchensis</i> )
2	34 inches	Sitka spruce ( <i>Picea sitchensis</i> )
2	25 inches	Sitka spruce ( <i>Picea sitchensis</i> )
2	43 inches	Sitka spruce ( <i>Picea sitchensis</i> )
2	23 inches	Red alder ( <i>Alnus rubra</i> )
3	27 inches	Western hemlock ( <i>Tsuga heterophylla</i> )
3	42 inches	Sitka spruce ( <i>Picea sitchensis</i> )
3	26 inches	Sitka spruce ( <i>Picea sitchensis</i> )
3	36 inches	Sitka spruce ( <i>Picea sitchensis</i> )
3	46 inches	Sitka spruce ( <i>Picea sitchensis</i> )
4	28 inches	Sitka spruce ( <i>Picea sitchensis</i> )
4	30 inches	Sitka spruce ( <i>Picea sitchensis</i> )

LEGEND:

East Property Boundary  
(East Property Meets Definition of  
Priority Habitat - Biodiversity Area)

100' Buffer

Priority Habitat - Mature Forest

Mature Sitka Spruce/  
Western Hemlock Forest  
(with Average DBH Over 21 Inches)

Red Alder/Salmonberry Community

Emergent Wetland Community  
(*Sparganium eurycarpum* is  
Dominant Species)

Hookers Willow/Douglas Spirea Community  
(Listed on the WDNR Known High-Quality  
or Rare Plant Communities and Wetland  
Ecosystem of Washington, November  
2010, Grays Harbor County)

See Stand 4  
on DBH Table

See Stand 3  
on DBH Table

See Stand 2  
on DBH Table

See Stand 1  
on DBH Table

- NOTE(S):
1.

Base map and 2005 orthographic photo from Grays Harbor County GIS Department.
2.

Land adjacent to and within 200 feet of OHWM of Duck Lake is a fish and wildlife conservation area according to Ocean Shores Municipal Code 19.02.120.



**WEATHERWAX LEGAL DESCRIPTION**

BEGINNING AT THE QUARTER CORNER OF SECTION 2 AND 11,  
T.17N., R.12W., W.M. COMMON TO THE NW CORNER OF LOT 98 IN THE PLAT OF  
OCEAN SHORES DIVISION NO. 23, RECORDED IN VOLUME 9 OF PLATS ON  
PAGES 82 THROUGH 95, RECORDS OF GRAYS HARBOR COUNTY, STATE OF  
WASHINGTON;

THENCE S 2°32'52" W ALONG THE EAST LINE OF THE NW ¼ OF SAID SECTION  
11 AND THE WESTERLY BOUNDARY OF SAID PLAT 1268.31', TO THE SW  
CORNER OF SAID PLAT, AND THE NW CORNER OF LOT 189 IN THE PLAT OF  
OCEAN SHORES DIVISION NO. 22, RECORDED IN VOLUME 9 OF PLATS ON  
PAGES 56 THROUGH 67, RECORDS OF SAID COUNTY; THENCE S 02°32'52" W  
ALONG THE WESTERLY BOUNDARY OF SAID PLAT 52.00 FT.; THENCE  
N 87°27'08" W ALONG THE NORTHERLY BOUNDARY OF SAID PLAT 318.18' TO  
THE NW CORNER OF SAID PLAT; THENCE N 87°27'08" W 1001.82 FT. TO THE NE  
CORNER OF THE SW ¼ OF THE NW ¼ OF SECTION 11; THENCE S 2°32'52" W  
1320.31' TO THE SE CORNER OF THE SW ¼ OF THE NW ¼ OF SECTION 11  
THENCE N 87°27'08" W 100.00' TO THE NE CORNER OF OCEAN SHORES  
DIVISION NO. 6, RECORDED IN VOLUME 8 OF PLATS ON PAGES 157 THROUGH  
159, RECORDS OF SAID COUNTY; THENCE N 87°27'08" W ALONG THE  
NORTHERLY BOUNDARY OF SAID PLAT 1220.00' TO THE QUARTER CORNER OF  
SECTIONS 10 AND 11; THENCE N 2°32'52" E 180' ALONG THE EASTERLY  
BOUNDARY OF SAID PLAT AND THE WEST LINE OF THE NW ¼ OF SECTION 11  
TO THE NORTH LINE OF SAID PLAT; THENCE CONTINUE N 2°32'52" E 908.61' TO  
THE SE CORNER OF THE SOUTH 809' OF THE NORTH 1552' OF THE EAST 100'  
OF SECTION 10; THENCE N 87°27'08" W 100.00', THENCE N 2°32'57" E 809';  
THENCE S 87°27'08" E 100.00' TO THE SECTION LINE COMMON TO SECTIONS 10  
AND 11; THENCE ALONG SAID SECTION LINE N 2°32'52" E 743' TO THE SECTION  
CORNER COMMON TO SECTIONS 2, 3, 10 AND 11; THENCE  
S 87°27'08" E 780' ALONG THE NORTH LINE OF SECTION 11 AND THE SOUTH  
LINE OF OCEAN SHORES DIVISIONS NO. 3, RECORDED IN VOLUME 8 OF PLATS  
ON PAGES 57 THROUGH 61, RECORDS OF SAID COUNTY, TO THE SW CORNER  
OF OCEAN SHORES DIVISION NO. 23; THENCE ALONG SAID SOUTH LINE  
S 87°27'08" E 1860' TO THE POINT OF BEGINNING.

SITUATE IN CITY OF OCEAN SHORES, COUNTY OF GRAYS HARBOR, STATE OF  
WASHINGTON.

COASTAL LAND SURVEYING, LLC  
P. O. Box 1128  
Westport, WA 98595  
360-268-7223



9-9-2015

## APPENDIX B BANK DEVELOPMENT PLAN AND DESIGN

### B.1 Development Plan – Overview

The general goal of the Bank site design is to preserve a mosaic of Category I Palustrine wetlands and priority uplands, old growth/mature forested priority uplands, and preservation and enhancement of uplands that provide habitat for priority species. A portion of the site's 100-foot buffer to the west that is currently un-vegetated will also be enhanced (**Figure B-1, Bank Site Design**). The Bank Sponsor has also discussed with the IRT the phasing in of credit generating activities, that if adopted will be included as addendums to the Instrument.

Enhancement of the Bank site consists of controlling Scotch broom and other non-native invasive species, planting native tree and shrubs, and nest box and sign installation. The enhancement area planting locations are shown in detail on **Figure B-2, Enhancement Areas Detail**, with the planting specifications listed in the Table B-1 below:

**Table B-1: Point enhancement planting plan**

<i>Point Enhancement Planting Plan</i>			
Planting Area & Acreage	Species to be Planted & Quantity (Using one-gallon container stock)	Nest Box Quantity & Target Species	Plant Spacing <sup>1</sup>
Area 1 - 0.03 acres	2 – Sitka spruce ( <i>Picea sitchensis</i> ) 1 – Western red cedar ( <i>Thuja plicata</i> ) 2 – Pacific wax-myrtle ( <i>Myrica californica</i> )	1 – Songbirds	On 9-10 foot centers and/or within spaces between existing vegetation
Area 2 - 0.07 acres	10 – Sitka spruce ( <i>Picea sitchensis</i> ) 5 – Western red cedar ( <i>Thuja plicata</i> ) 5 – Pacific wax-myrtle ( <i>Myrica californica</i> )	1 – Songbirds	On 9-10 foot centers
Area 3 - 0.02 acres	2 – Sitka spruce ( <i>Picea sitchensis</i> ) 1 – Western red cedar ( <i>Thuja plicata</i> ) 2 – Pacific wax-myrtle ( <i>Myrica californica</i> )	1 – Songbirds	On 9-10 foot centers and/or within spaces between existing vegetation
Area 4 - 0.17 acres	10 – Sitka spruce ( <i>Picea sitchensis</i> ) 5 – Western red cedar ( <i>Thuja plicata</i> ) 5 – Pacific wax-myrtle ( <i>Myrica californica</i> )	2 – Songbirds	On 9-10 foot centers and/or within spaces between existing vegetation
Area 5 - 0.23 acres	50 – Sitka spruce ( <i>Picea sitchensis</i> ) 50 – Shore pine ( <i>Pinus contorta</i> )	3 – Songbirds	On 9-10 foot centers
Area 6 - 0.17 acres	10 – Sitka spruce ( <i>Picea sitchensis</i> ) 5 – Western red cedar ( <i>Thuja plicata</i> ) 10 – Pacific wax-myrtle ( <i>Myrica californica</i> )	3 – Wood Ducks	On 9-10-foot centers and/or within spaces between existing vegetation
Total = 175 Plants		8 Songbird Boxes/ 3 Wood Duck Boxes	--
Notes: Planting areas total 0.69 acres/2 due to existing vegetation.= 0.34 acres used to determine total plant quantity			

<sup>1</sup>Due to existing vegetation, plant spacing may require adjustment upon installation.

Enhancement of a portion of the Bank site's western 100-foot buffer consists of controlling non-native invasive species and planting native trees. The enhancement area planting is shown in detail on **Figure B-2, Enhancement Areas Detail**, with the planting specifications listed in the Table B-2 on the following page:

**Table B-2: Buffer enhancement planting plan**

<i>Portion of 100-foot Western Buffer Enhancement Planting Plan</i>		
<b>Planting Area Acreage</b>	<b>Species to be Planted &amp; Quantity (Using one-gallon container stock)</b>	<b>Plant Spacing</b>
0.11 acres/ 4,642 sq. ft.	20 – Sitka spruce ( <i>Picea sitchensis</i> ) 20 – Shore pine ( <i>Pinus contorta</i> ) 20 – Pacific wax-myrtle ( <i>Myrica californica</i> )	Approx. 8 foot centers

An existing system of trails within the West Property will be modified by decommissioning 935 linear feet of trail throughout the Wetland/Upland Mosaic section and 1,814 linear feet within the adjacent Priority Uplands (**Figure A-9, Trail System Map**). Decommissioned trails will be enhanced with strategically placed clusters of mixed woody debris (MWD), native plants, and fence barriers to deter continued trail use and provide additional habitat structure and function (**Figure B-4, MWD, Native Plants and Nest Box Specifications; Figure B-5, Barriers and Planting Locations**). Mixed woody debris will be placed at the entrance points of the decommissioned trails, and will consist of a mixture of limbs, downed trees and native plantings. Limbs and downed trees will be of a species such as spruce, pine, and hemlock. Woody debris and native plantings will only be placed at the entrances of the decommissioned trails and will be accompanied by a sign on a fence barrier providing notice of trail closures.

To discourage trespassing and garbage dumping, yet allow for continued wildlife movement, several measures will be put into place on the eastern portion of the Bank site that abuts residential development:

1. Neighboring landowners will be made aware that the site is a protected Bank site and asked to not encroach into the site area. In addition, real estate agents will be notified about the status of the property so as to accurately represent the limitations on lake access through the site to potential buyers of contiguous lots.
2. A city ordinance will be adopted which allows for enforcing the protection of the Bank site (trespassing would result in fines or the like). This will also discourage use of the decommissioned trails.
3. Signs will be installed along the eastern Bank site boundary indicating that the site is protected and citing the ordinance that enforces the protection of the site.

The western boundary is protected from trespass by a chain link fence. Signs will be posted at the trailheads leading into the property from the north and south, and along the school boundary. Signs will also be posted along the shoreline of Duck Lake to deter public access to the bank site and along the northern boundary of the Point. A conservation easement and deed restriction will be recorded with Grays Harbor County to protect the site from disturbances in perpetuity. After the Bank sells all of its credits, the site and long-term endowment will be managed by the City of Ocean Shores, to allow for protection and management in perpetuity.

The Bank Sponsor has discussed with the IRT the phasing in of credit generating activities, that if adopted would be included as addendums to the Instrument (ELS 2012 and IRT 2012). The

following are the possible future credit generating activities that have been discussed with the IRT;

- Wetland re-establishment and enhancement (to include placement of large woody debris) within the Bank site along the dredged shorelines of Duck Lake
- Environmental Education (with Bank site access) that focuses on the Bank site
- Inclusion within the Bank of the Duck Lake islands

Wetland re-establishment would consist of the development of sandfill pads within the Bank boundaries, along the dredged shorelines of Duck Lake. The sandfill pads will be surrounded by large woody debris (LWD) placed in clusters containing three to five pieces of logs with root wads and/or root wads placed strategically and secured along the Bank site lakeshore, with organic soil applied over the sandfill, and native emergent and scrub-shrub species planted within the organic soil applied over the sandfill. Future wetland enhancement will consist of placement of additional LWD along the shoreline of Duck Lake. Future environmental education with Bank site access will consist of the development of an IRT approved educational program.

## B.2 Implementation Activities

The following activities will be implemented to complete the site design. Some activities may be performed concurrently with other activities:

1. Remove non-native invasive species throughout the entire Bank site, with special emphasis on the Point and the Buffer Enhancement Area, including but not limited to Scotch broom (*Cytisus scoparius*), Reed canarygrass (*Phalaris arundinacea*), Himalayan blackberry (*Rubus armeniacus*), and Brazilian elodea (*Egeria densa*) occurring within the Bank site Lacustrine fringe wetlands.
2. Install native plants in the six areas (totaling 0.69 acres) within the Point and the Buffer Enhancement Area (totaling 0.11 acres) within the 100-foot western site buffer (**Figure B-2, Enhancement Areas Detail**). Install 11 nest boxes within the six enhancement areas.
3. With the exception of the trails area (Section B.2.4), post signs that prohibit trespassing, littering, vandalism and access to the wetland mosaic area. This will include the following signs:
  - No Shoreline Access signs every 300 feet along the Duck Lake shoreline. The signs must be made of an enamel-coated metal face and attached to a metal post, or another nontreated material of equal durability. The signs may be attached directly to trees along the shoreline;
  - No Trespassing or Littering signs on alternating lot-line intersections on the east and south Bank boundary where it is adjacent to residential lots, providing visibility of one sign from each lot. The signs must be made of an enamel-coated metal face and attached to a metal post, or another nontreated material of equal



durability. If there are fences along the Bank boundary, the signs may be attached directly to the fence

- No Trespassing or Littering signs on the west and north Bank boundary every 300 feet where fences are present and every 100 feet where there is no fence. The signs must be made of an enamel-coated metal face and attached to a metal post, or another nontreated material of equal durability. The signs may be attached directly to the fence; and
  - “No Access” signs at the north and south trailheads preventing access to the wetland mosaic area. The signs must be made of an enamel-coated metal face and attached to a metal post, or another nontreated material of equal durability. **(Figure B-3, MWD and Sign Locations Map)**
4. Enhance decommissioned trails with mixed woody debris (MWD), native plants, and fence barriers to deter continued use of the trail and provide additional habitat structure and function (**Table B-3, Native Plants Used for Trail Decommissioning**).
  5. Adopt a city ordinance allowing for enforcing the protection of the Bank site and which would prohibit unauthorized access or entry onto any part of the Bank site not posted as trail access, including enforcement measures and/or fines.

**Table B-3 Native Plants List for Trail Decommissioning**

Description	Quantity
Sitka spruce - <i>Picea sitchensis</i> , 5 gal.	10
Western red cedar - <i>Thuja plicata</i> , 1 gal.	10
Cascara <i>Frangula purshiana</i> , 2 gal	13
Western hemlock - <i>Tsuga heterophylla</i> , 2 gal.	12
Wild Gooseberry- <i>Ribes bracteosum</i> 1 gal.	10
Nooka Rose - <i>Rosa nutkana</i> 1 gal	20
Sword Fern- <i>Polystichum munitum</i> 1 gal	20
Evergreen huckleberry - <i>Vaccinium ovatum</i> 1 Gal	10
Total	105

### B.3 Maintenance

General maintenance will be performed throughout the year to address conditions that may limit the success of the Bank and attainment of performance standards and objectives. The Sponsor is responsible for all Bank site maintenance activities throughout the establishment period of the Bank. Maintenance activities will include controlling, throughout the Bank site, non-native invasive plants such as, but not limited to, Scotch broom, reed canarygrass, and Himalayan blackberry, and also including Brazilian elodea within the Bank sites’ Duck Lake Lacustrine fringe wetlands as needed.

Other vegetative maintenance activities will include watering, replanting failed plants to meet performance standards, and deterring herbivores such as voles, beaver, and deer, and mowing weeds at the base of trees and shrubs to discourage voles and root competition. General

maintenance activities include: prevention of new trails and inspection of existing and decommissioned trails, inspecting and re-installing signs (if necessary), removing garbage and repairing vandalism. All maintenance activities will be documented within annual monitoring reports.

Weed control will occur as needed, throughout the growing season, and will target reed canarygrass (*Phalaris arundinacea*), Himalayan blackberry (*Rubus armeniacus*), and any non-native invasive species that attempt to colonize the site. If found, Japanese knotweed (*Polygonum cuspidatum*), English ivy (*Hedera helix*), purple loosestrife (*Lythrum salicaria*), and Brazilian elodea (*Egeria densa*) will be immediately eradicated onsite. Invasive-plant control will follow methods recommended by the Grays Harbor County Weed Management Department and will be controlled by mowing, uprooting, or selective application of herbicides approved by the Washington State Department of Agriculture. Weed control methods will be performed according to the most effective control for that species and according to Washington Department of Agriculture regulations, which include hand pulling, spot spraying, inoculation, or weed whipping with the appropriate herbicides.

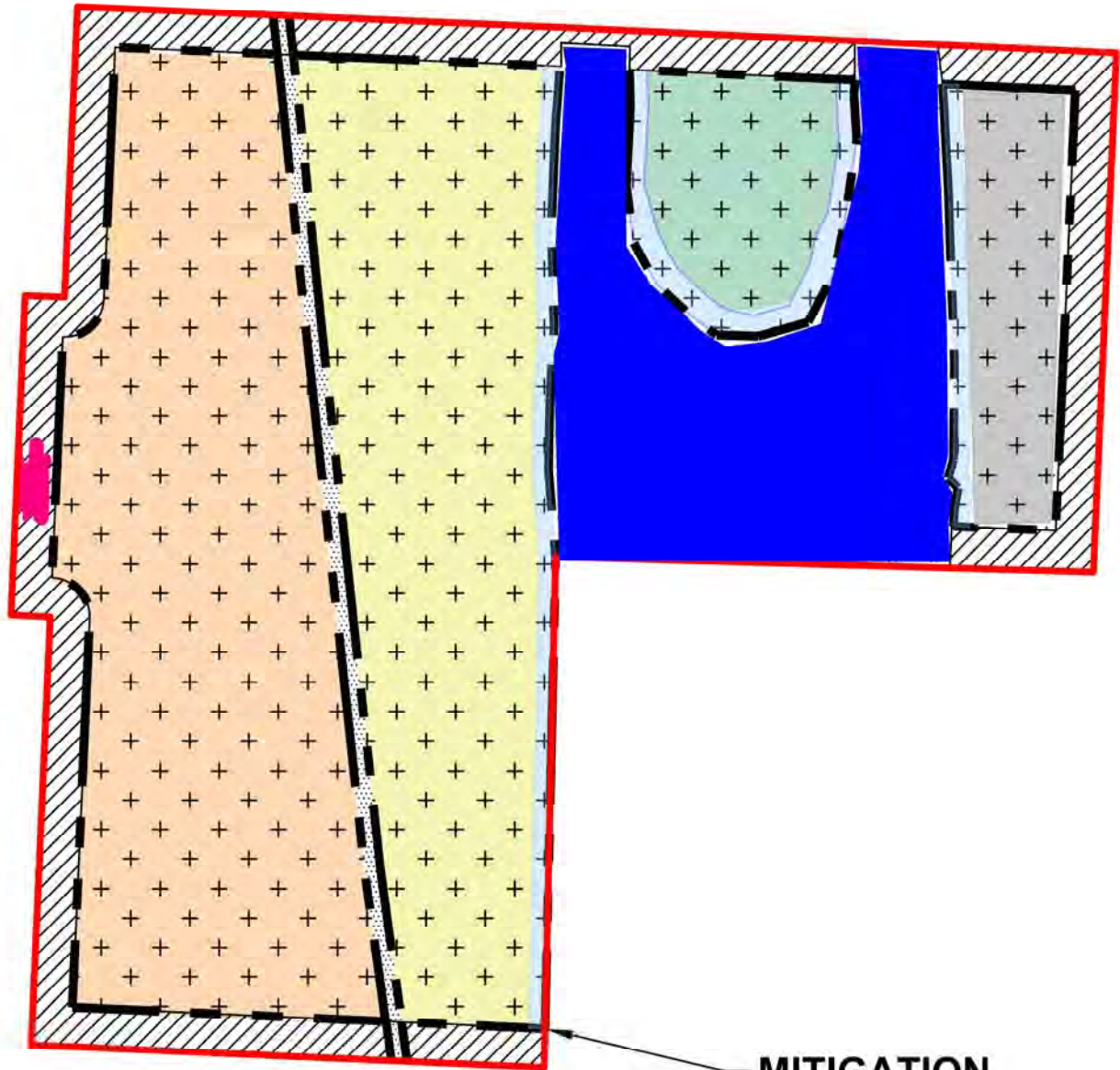
**References**

Ecological Land Services (ELS). March 3, 2012. *IRT 2/2/2012 Meeting Minutes Action Item Responses*. Ecological Land Services. Page 1 and Page 7.

Interagency Review Team (IRT). February 2, 2012. *IRT 2/2/2012 Meeting Minutes*. Ecological Land Services. Page 4.

Trail Decommissioning Proposal, August 2014, Jerry Mergler

Sign Specification and Placement Proposal, August 2014, Marlene Penry



**LEGEND:**

- Mitigation Site Boundary (Approx. 121.86 acres) (Includes Portion of Duck Lake)
- Bank Buffer (19.37 acres)
- Credit Generation (84.38 acres)
- Lacustrine Wetland Fringe Preservation (10.34 acres Outside of Buffer/11.07 acres Total)
- Wetland Mosaic Preservation (35.05 acres Outside of Buffer/46.11 acres Total)
- Upland Enhancement (5.69 acres Outside of Buffer/6.81 acres Total)
- Mature/Old Growth Forest Preservation - West Property (27.18 acres Outside of Buffer/32.60 acres Total)
- Mature Forest Preservation - East Property (6.12 acres Outside of Buffer/7.16 acres Total)
- Buffer Enhancement Area (0.11 acres)
- Duck Lake (15.66 acres)
- 40' Powerline Easement (2.45 acres)

Bank Activity/Area	Area (acres)
Wetland and Upland Preservation	78.69
Upland Enhancement	5.69
Buffer - Including Enhancement Acreage	19.37
Duck Lake	15.66
Powerline Easement	2.45
Total	121.86

Figure B-1  
BANK SITE DESIGN  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.

DATE: 2/25/15  
DWN: JKJ  
REQ. BY: SK  
PRJ. MGR: FN  
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ECOLOGICAL LAND SERVICES, INC.  
  
1157 3rd Ave., Suite 220  
Longview, WA 98632  
Phone: (360) 578-1371 Fax: (360) 414-9305

0 600 1200  
SCALE IN FEET  
1" = 600'

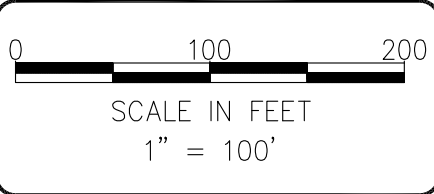
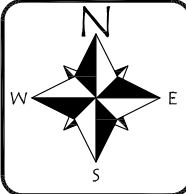




Point Enhancement Planting Plan			
Planting Area & Acreage	Species to be Planted & Quantity (Using one-gallon container stock)	Nest Box Quantity & Target Species	Plant Spacing <sup>1</sup>
Area 1 - 0.03 acres	2 – Sitka spruce ( <i>Picea sitchensis</i> ) 1 – Western red cedar ( <i>Thuja plicata</i> ) 2 – Pacific wax-myrtle ( <i>Myrica californica</i> )	1 – Songbirds	On 9-10 foot centers and/or within spaces between existing vegetation
Area 2 - 0.07 acres	10 – Sitka spruce ( <i>Picea sitchensis</i> ) 5 – Western red cedar ( <i>Thuja plicata</i> ) 5 – Pacific wax-myrtle ( <i>Myrica californica</i> )	1 – Songbirds	On 9-10 foot centers
Area 3 - 0.02 acres	2 – Sitka spruce ( <i>Picea sitchensis</i> ) 1 – Western red cedar ( <i>Thuja plicata</i> ) 2 – Pacific wax-myrtle ( <i>Myrica californica</i> )	1 – Songbirds	On 9-10 foot centers and/or within spaces between existing vegetation
Area 4 - 0.17 acres	10 – Sitka spruce ( <i>Picea sitchensis</i> ) 5 – Western red cedar ( <i>Thuja plicata</i> ) 5 – Pacific wax-myrtle ( <i>Myrica californica</i> )	2 – Songbirds	On 9-10 foot centers and/or within spaces between existing vegetation
Area 5 - 0.23 acres	50 – Sitka spruce ( <i>Picea sitchensis</i> ) 50 – Shore pine ( <i>Pinus contorta</i> )	3 – Songbirds	On 9-10 foot centers
Area 6 - 0.17 acres	10 – Sitka spruce ( <i>Picea sitchensis</i> ) 5 – Western red cedar ( <i>Thuja plicata</i> ) 10 – Pacific wax-myrtle ( <i>Myrica californica</i> )	3 – Wood Ducks	On 9-10-foot centers and/or within spaces between existing vegetation
Total = 175 Plants		8 Songbird Boxes/ 3 Wood Duck Boxes	--
Notes: Planting areas total 0.69 acres/2 due to existing vegetation.= 0.34 acres used to determine total plant quantity			

- Notes:
- Enhancement to include control of invasive species throughout the Point and buffer enhancement area, particularly Scotch broom (*Cytisus scoparius*).
  - Initial invasive control effort(s) will be completed before fall planting of native species for Point enhancement and buffer enhancement areas.
  - A typical showing correct planting technique for container stock will be provided to the City of Ocean Shores.
  - 2011 aerial photo provided by Google Earth™.

Portion of 100-foot Western Buffer Enhancement Planting Plan		
Planting Area Acreage	Species to be Planted & Quantity (Using one-gallon container stock)	Plant Spacing
0.11 acres/ 4,642 sq. ft.	20 – Sitka spruce ( <i>Picea sitchensis</i> ) 20 – Shore pine ( <i>Pinus contorta</i> ) 20 – Pacific wax-myrtle ( <i>Myrica californica</i> )	Approx 8 foot centers



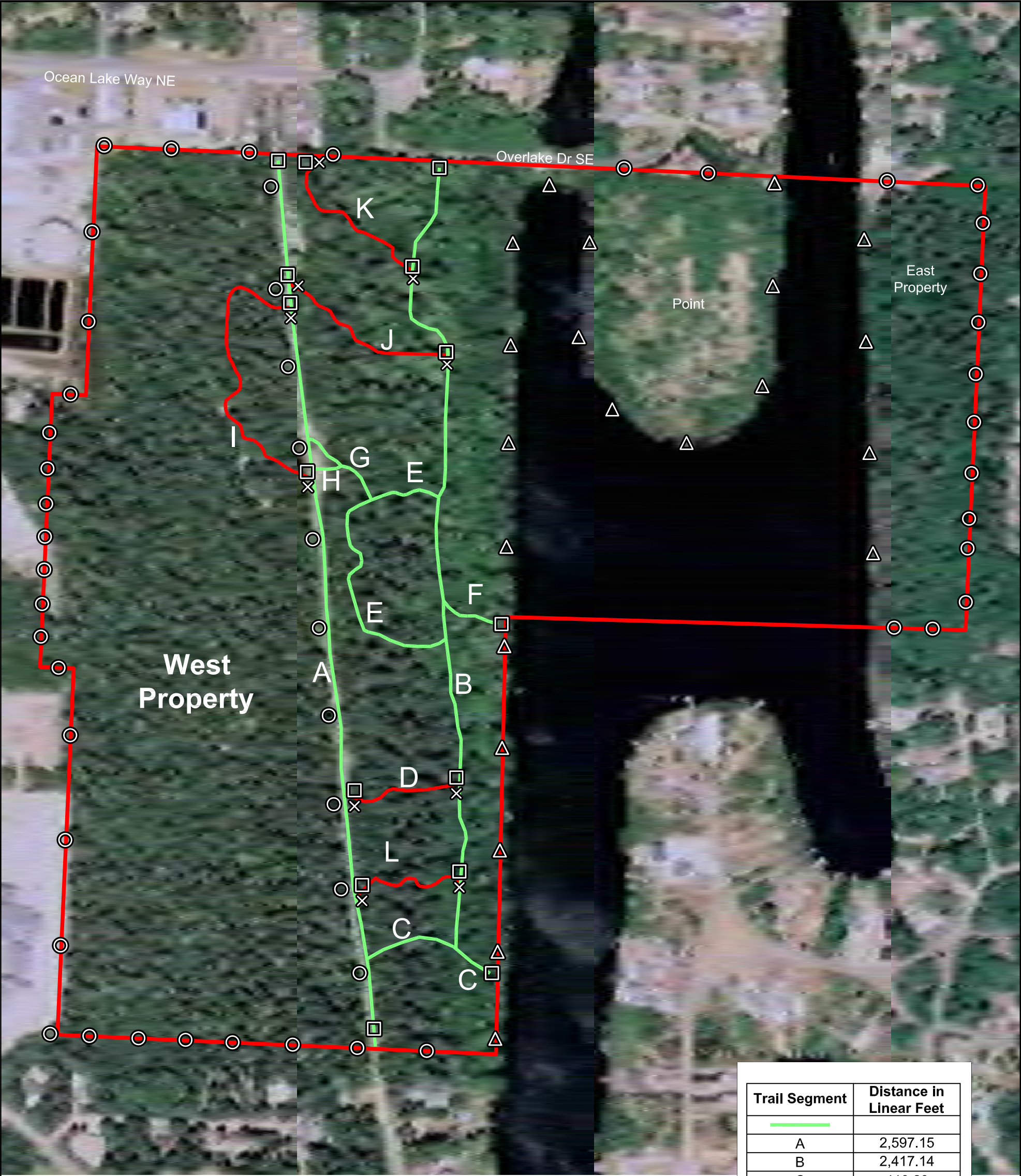


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PROJECT NO: 1808.02

Figure B-2  
ENHANCEMENT AREAS DETAIL MAP  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.





Trail Segment	Distance in Linear Feet
<div></div>	
A	2,597.15
B	2,417.14
C	410.29
E	938.53
F	183.53
G	274.11
H	89.78
Total	6910.53
<div></div>	
D	361.62
I	934.49
J	556.29
K	524.21
L	371.90
Total	2,748.51

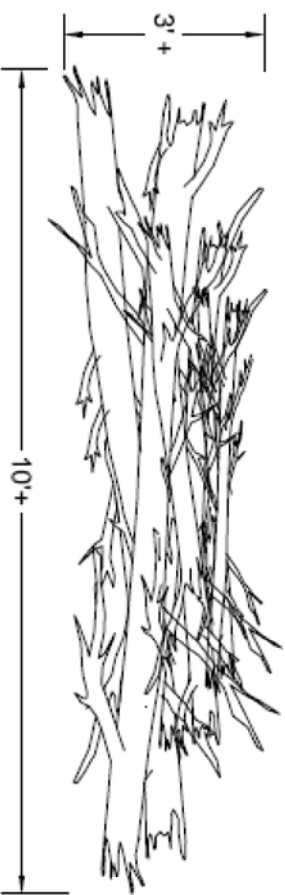
LEGEND:

- Maintained Trail
- Decommissioned Trail
- Location of Sign Posted at Trailhead
- Location of Sign Posted on Adjoining Properties
- Location of Sign Posted on Shoreline
- Location of Mixed Woody Debris

NOTE(S):

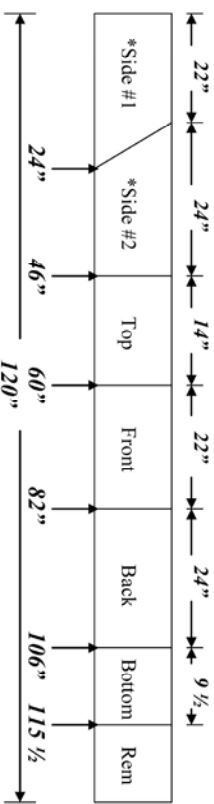
1. Aerial photograph (2006) provided by Google Earth™.

A. MIXED WOODY DEBRIS

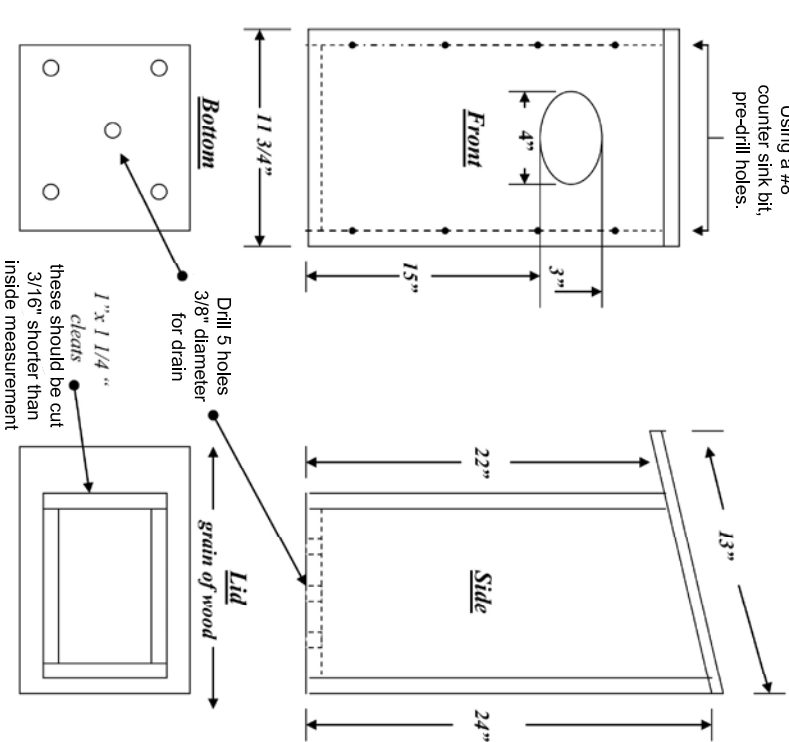


- Brush Pile Specifications:
1. Contain 3 layers of brush (ranging from approximately 1/4- to 6-inch in diameter) with the largest diameter brush layer on the bottom of the pile, with progressively smaller diameter brush towards the top of the pile.

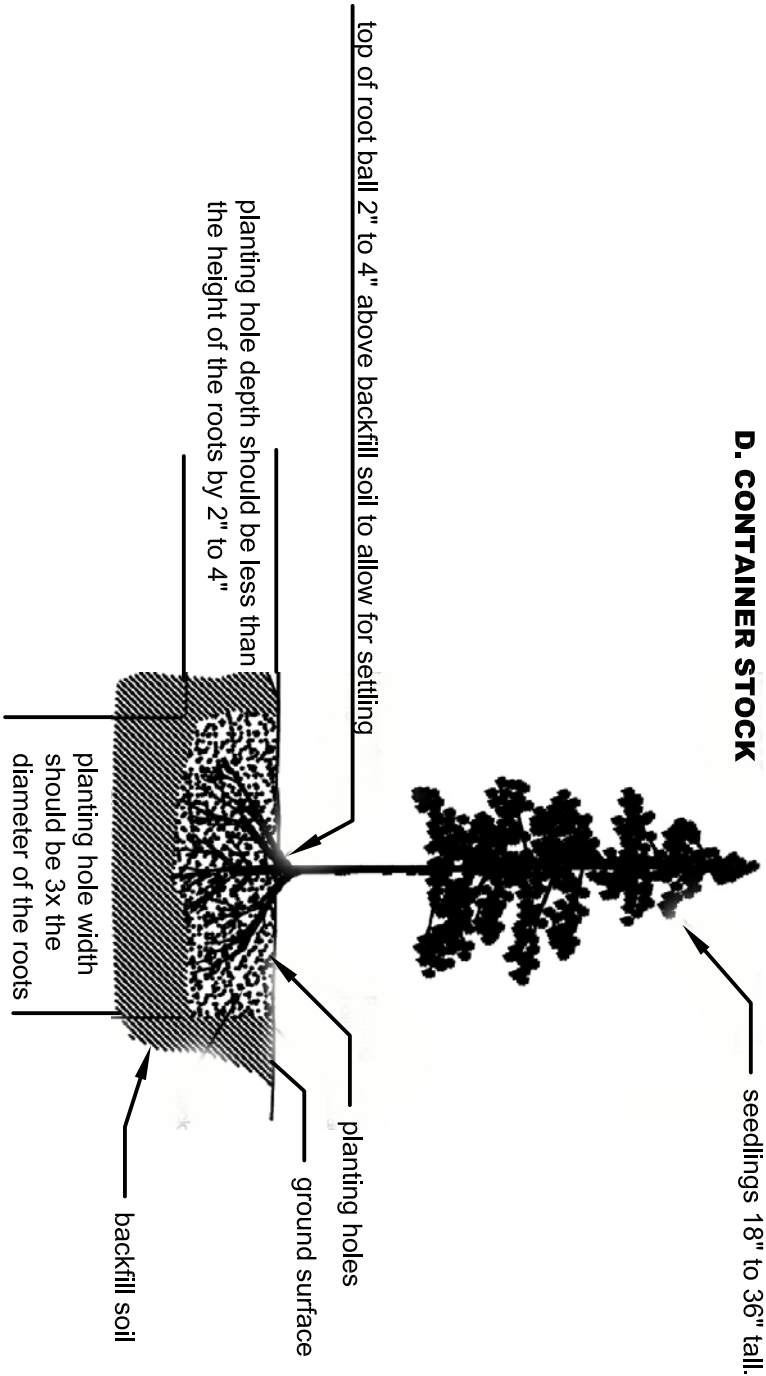
C. WOOD DUCK BOX



Using a #8 counter sink bit, pre-drill holes.

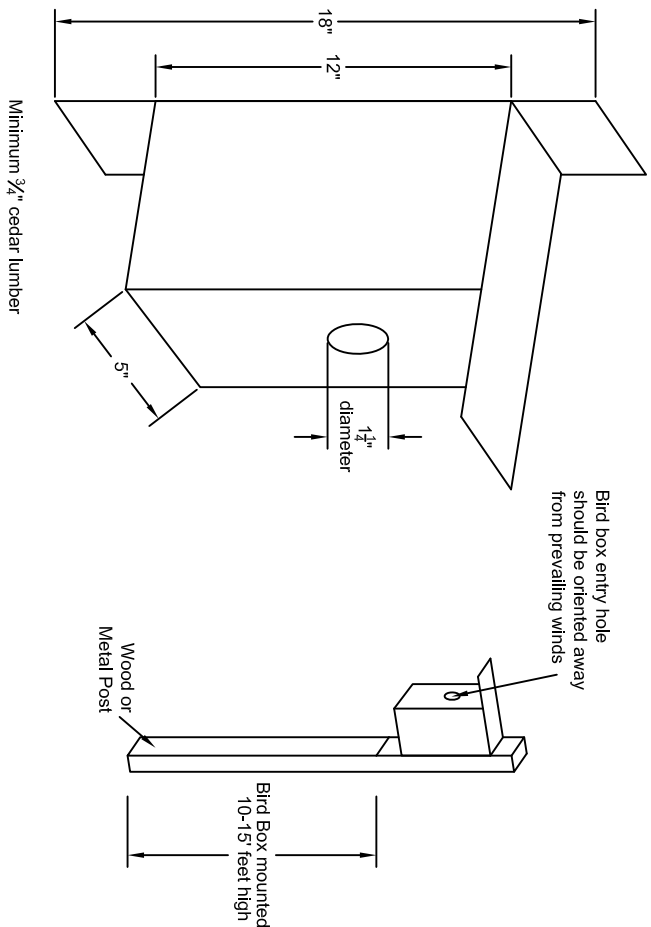


D. CONTAINER STOCK



- NOTES:
1. Use a shovel to slice into loose soil, gently compact soil and do not step on bed.
  2. Water heavily after transplanting.
  3. Do not add soil amendments or fertilizers in the planting holes.

B. SONG BIRD BOX







**LEGEND:**

- Barrier
- Native Planting
- No Trail
- Sensitive Ecological Area

**NOTE(S):**

- Aerial photograph (2006) provided by Google Earth™.
- Reference Figure B-6

Trail Segment	Distance in Linear Feet
A	2,597.15
B	2,417.14
C	410.29
E	938.53
F	183.53
G	274.11
H	89.78
<b>Total</b>	<b>6910.53</b>
D	361.62
I	934.49
J	556.29
K	524.21
L	371.90
<b>Total</b>	<b>2,748.51</b>



**SHORELINE SIGNS**

Weatherwax Mitigation Bank  
Sensitive Ecological Area

**NO SHORELINE  
ACCESS**

Ocean Shores Municipal Code 19.02.140

**PERIMETER SIGNS**

Weatherwax Mitigation Bank  
Sensitive Ecological Area

**NO TRESPASSING OR  
LITTERING**

Ocean Shores Municipal Code 19.02.140

**INTERIOR SIGNS**

Weatherwax Mitigation Bank  
Sensitive Ecological Area

**NO TRAIL**

Ocean Shores Municipal Code 19.02.140

**TRAILHEAD SIGNS (north, south)**

Weatherwax Mitigation Bank  
Sensitive Ecological Area

**NO TRAILS ON  
WEST SIDE**

Ocean Shores Municipal Code 19.02.140

Weatherwax Mitigation Bank  
Sensitive Ecological Area

**NO ACCESS TO  
LAKE FRINGE**

Ocean Shores Municipal Code 19.02.140

Weatherwax Mitigation Bank  
Sensitive Ecological Area

**NO TRAILS ON  
WEST SIDE**

Ocean Shores Municipal Code 19.02.140

**NOTE:**

- All signs are 12” high and 16” long.
- All signs are white on brown with the exception of Buffer Area which are white on red.
- All signs must be made of an enamel coated metal face and attached to a metal post or other non-treated material of equal durability.

For more information contact:  
City of Ocean Shores  
(360) 289-3099

DATE: 9-10-15  
UPDATE: COS  
PROJECT NO: 1808.02



Figure B-6  
Sign Specifications  
Weatherwax Mitigation Bank  
City of Ocean Shores, Grays Harbor County, WA  
Sections 2&11, Township 17N, Range 12W, W.M.

## **APPENDIX C BANK OBJECTIVES AND PERFORMANCE STANDARDS**

### **C.1 Bank Objectives and Performance Standards**

A. Implementation of the Weatherwax Mitigation Bank is anticipated to result in substantial gains in aquatic ecosystem functions as compared to those now present, or those that would likely accrue on the site if the Bank were not constructed, through preserving and enhancing aquatic ecosystem functions. The Sponsor must be able to demonstrate tangible aquatic ecosystem gains before Bank credits can be awarded for sale, use, or other transfer, because these functional gains will be used to offset comparable losses to other components of the aquatic environment in the Bank service area. The Bank's success will be measured by the enumerated objectives, each of which is subdivided into specific performance standards. The prescribed performance standards each provide a gauge for measuring the success of the ecological preservation and enhancement efforts at the Bank.

B. Unless otherwise noted, all documentation required for demonstrating attainment of performance standards will be submitted to the IRT for review and approval as a condition of credit award. Documentation can typically be included in required monitoring reports. IRT award of credits will be reflected in a letter issued using a joint letterhead and signed by the Corps and Ecology.

C. Recreational, educational, and scientific activities that do not conflict with the use limitations or other provisions of the conservation easement, do not interfere with the delineated purposes and goals of the Bank, and do not adversely affect the ecological viability and functionality of the Bank may take place on the Bank site.

D. All performance standards apply to the entire Bank site including the buffer area.

### **C.2 Bank Objectives and Performance Standards**

#### **Objective 1: Protect Aquatic Ecosystem Functions**

Permanently protect aquatic ecosystem functions at the Bank by instituting this Instrument and implementing a conservation easement with permanent funding for site stewardship. Each of the performance standards associated with this objective must be met before any Bank credits may be awarded, and before any construction or other implementation activities may be initiated pursuant to this Instrument. Any construction or implementation activities conducted onsite prior to the inception of the establishment period must cease as of the effective date of this Instrument pursuant to Article VI.B.1, until performance standards 1.a. through 1.d. have been accomplished. The initial award of credits in recognition of accomplishment of these performance standards will serve as the IRT's notification that construction and implementation activities are authorized to commence.

<b>Performance Standard</b>	<b>Documentation</b>
1a. Complete the development of an appropriate Mitigation Banking Instrument and Appendices.	Mitigation Banking Instrument has been signed by the Sponsor and the applicable regulatory agencies. An original signed Instrument must be provided to each of the signatories.
1b. Protect ecosystem functions by placing an IRT-approved conservation easement on the property.	Provide the IRT with copies of the signed, IRT-approved conservation easement and evidence that it has been recorded with the Grays Harbor County and placed on the property title.
1c. Establish local regulatory framework for site protection	Provide the IRT with copies of enacted City Ordinance that prohibits unauthorized access, trespass, vandalism and littering at the Bank site.
1d. Establish a Long-Term Management and Maintenance Endowment Fund escrow account and develop an escrow agreement, all pursuant to the requirements established in Article III.C.2. of the Instrument.	Demonstrate to the IRT that a Long-Term Management and Maintenance Endowment Fund has been initiated through establishment of a compliant and acceptable escrow account. Enter into an escrow agreement with the Corps and Ecology.

**Objective 2: Remove Garbage and Decommission Trails.**

Garbage will be removed from the Bank site and 2,749 linear feet of trails decommissioned

<b>Performance Standard</b>	<b>Documentation</b>
2a. Garbage will be removed and will be recycled or disposed at an appropriate facility. Mixed woody debris (MWD) plants and barriers with trail closure signs will be placed at the entrance of decommissioned trails in accordance with Table B-3.	As-built report with photographs showing before and after conditions of garbage removal and placement of MWD, plants and barriers on decommissioned trail sections approved by the IRT. Areas of garbage removal, MWD, plants and barrier locations indicated on a site map approved by the IRT.
2b. In Years 1, 3, 5, 7, and 10 following approval of As-built, remove any garbage the size of an 8-ounce soup can or larger on the site.	Monitoring reports documenting the absence of garbage at the time of monitoring event in Years 1, 3, 5, 7 and 10 approved by the IRT. Documentation includes photographs and an explanation of where and what type of garbage was removed.
2c. In Years 1, 3, 5, 7, and 10, document presence of MWD, plants and barriers on decommissioned trails and actions taken to discourage development and use of new trails. In Years 1, 3, 5, 7, and 10, repair/replace materials as required to continue trail decommissioning until natural vegetation provides full barrier.	Monitoring reports documenting MWD, plants and barriers presence on decommissioned trails and actions taken to discourage trails use and the development of additional trails in Years 1, 3, 5, 7, and 10 approved by the IRT. Documentation includes photographs and description of maintenance activities. Pictures and report addressing effectiveness of trail closure process and final condition when trail closure barriers are removed approved by the IRT.

**Objective 3: Vegetation**

Enhance approximately 0.69 acres of the Point uplands and approximately 0.11 acres of the 100-foot western buffer area as shown on **Figure B-2, Enhancement Areas Detail Map**, and remove/control non-native invasive vegetation.

*Note: “Cover” is used in this MBI to mean the actual proportion of the ground surface of the enhancement area that is covered by a vertical projection of foliage (by single species or defined group of species) as viewed from above (or below for taller shrubs and trees), or by bare substrate.*

Performance Standard	Documentation
<p>3a. Planting of site completed according to IRT approved plans. Plant 175 total plants comprised of Western Red Cedar, Pacific Wax-Myrtle, Sitka Spruce and Shore Pine on approximately 0.69 acres as described by Figure B-2. Plant 60 total plants comprised of Sitka Spruce, Shore Pine, and Pacific Wax-Myrtle on approximately 0.11 acres of the Western Buffer area as described in Figure B-2.</p>	<p>As-built planting plan showing planted areas as approved by the IRT. Documentation will include a species list, plant spacing and density, and final planted acreages of trees and shrubs.</p>
<p>3b. Planted tree and shrub survival will be 100% in Year 1, 95% in Year 3, and 90% in Years 5, 7, and 10 following approval of As-built. Survival counts can include natural recruits.</p>	<p>Monitoring reports documenting survival of planted trees and shrubs as approved by the IRT. Document survival in Years 1, 3, 5, 7, and 10.</p>
<p>3c. Cover of the invasive non-natives Scotch broom (<i>Cytisus scoparius</i>), Reed canarygrass (<i>Phalaris arundinacea</i>), Bull thistle (<i>Cirsium vulgare</i>), Canada thistle (<i>Cirsium arvense</i>), and Himalayan blackberry (<i>Rubus armeniacus</i>), do not collectively exceed 10% cover within the wetland mosaic in Years 5 &amp; 10 and in all other areas of the site in Years 1, 3, 5, 7 and 10 following approval of As-built.</p> <p>Additional species may be added pursuant to Article VI.B.2.</p>	<p>Monitoring reports documenting percent cover of the invasive non-natives Scotch broom, Reed canarygrass, Himalayan blackberry, Bull and Canada thistle and other invasive species approved by the IRT. Document the percent cover of invasive non-natives in Years 1, 3, 5, 7, and 10.</p>
<p>3d. Over the entire site, maintain zero tolerance for colonization of Japanese knotweed (<i>Polygonum</i> spp.) and related hybrids, Purple loosestrife (<i>Lythrum salicaria</i>), and English ivy (<i>Hedera helix</i>). Maintain zero tolerance of Brazilian elodea (<i>Egeria densa</i>), in addition to the previously listed species, within the site's Duck Lake Lacustrine wetlands. Map any specimens and eradicate during growing season of each year.</p> <p>Additional species may be added pursuant to Article VI.B.2.</p>	<p>Monitoring reports documenting identification and eradication approved by the IRT. Inventory and eradicate annually and include in monitoring reports at Years 1, 3, 5, 7, and 10.</p>

**Objective 4: Install Signs and Nest Boxes**

Discourage littering, vandalism, trespassing, and unauthorized entry on the Bank site by installing signage in specified areas within the Bank Site. Signage will include reference to the ecological value of the site as well as the City’s Ordinance prohibiting trespassing/littering, etc. Install nest boxes within the six enhancement areas located on the Point.

<b>Performance Standard</b>	<b>Documentation</b>
<p>4a. Install and maintain “No Shoreline Access” signs every 300 feet along the Duck Lake shoreline. Install “No Trespassing or Littering” signs on alternating lot line intersections on the east and south Bank boundary.</p> <p>Install and maintain “No Trespassing or Littering” signs on the west and north Bank boundary every 300 feet where fences are present and every 100 feet where there is no fence.</p> <p>Install and maintain “No Access” signs at north and south trailheads preventing access to wetland mosaic.</p> <p>Install and maintain nest boxes in enhancement planting areas on the Point in accordance with Figure B-2.</p>	<p>As-built drawings and photographs showing installed signs and nest boxes approved by the IRT.</p> <p>Wording of signs will be approved by the IRT prior to installing.</p>

## **APPENDIX D CREDIT GENERATION AND AWARD SCHEDULE**

### **D.1 Generation of Credits:**

A. Credits will be established and awarded to the Bank upon the Sponsor's demonstration that the Performance Standards reflected in Appendix C, Section C.2 have been met.

B. A credit is defined as a unit of measure representing the increase in the ecological value of the Bank site. A credit for this Bank represents the increase in functions and values of the wetland systems on the project site. This increase in function results from the preservation of wetlands, and enhancement of uplands, on the Bank site. Wetland function is preserved by removal of the risk of future impacts, in this case including site development for single family residential development and golf courses, or timber harvest. The Bank site contains high conservation values, including Category I wetlands, and mature forested uplands.

The site is positioned centrally in the Ocean Shores Peninsula, and is connected to a complex of lakes and wetlands to the north that generally occur in a north-south orientation within swales between historic traverse dunes. Duck Lake, within the Bank site, is an important recreational boating and fishing lake for the public, accessible through a public park on the eastern shore of the lake. However, there are no public access points within the bank boundary and signs will be placed along the shoreline to deter recreational lake users from accessing the bank. As one of the last remaining large tracts of land in the Ocean Shores Peninsula area, the Bank site offers high conservation values. The addition of this preserved site also protects the overall functioning of the peninsula's drainage system. While typical wetland preservation ratios range from 10:1 to 20:1, the credit ratios of 6:1 and 8:1 is appropriate here due to the size of the site, the complexity of habitat and high conservation values, the certainty of its protection, and the risk to the site including its wetland and upland habitat function, if the property is not protected from human-caused perturbation. The anticipated credits reflected in Table D-1 are determined based on the anticipation that the Bank will continue to rate as a high functioning system.

C. The precise number of credits actually generated by the Bank cannot be determined until the project is implemented and the success of preservation and enhancement activities is assessed by the Corps and Ecology, in consultation with the IRT. The final number of credits will be determined by Corps and Ecology, in consultation with the IRT, and will be based on achievement of the Performance Standards set forth in Appendix C of this instrument.

D. Credits generated by the Bank will be calculated as shown in the table below:

**Table D-1: Wetland Credit Generation by Bank Development Activity**

<b>Bank Activity</b>	<b>Area of Credit Generation (acres)</b>	<b>Credit Ratio (Activity Area: Universal Credit)</b>	<b>Anticipated Number of Credits</b>
Wetland Mosaic Preservation	35.05	6:1	5.84
Old Growth/Mature Forest Preservation	33.3	8:1	4.17
Upland Enhancement	5.69	12:1	0.47
Lacustrine Fringe Preservation	10.34	8:1	1.29
<b>Total</b>	<b>84.38</b>	<b>-</b>	<b>11.77</b>

## **D.2 Credit Award Schedule**

A. Credits will be awarded to the Bank for sale, use, or other transfer as the performance standards associated with those credits are met, with the following exceptions: (1) no credits may be awarded prior to meeting all of the performance standards associated with Objective 1, and (2) no credits associated with the Year 10 performance standards may be awarded until at least 60% of all possible credits associated with Years 0 through 9 have been awarded.

B. The Corps and Ecology, in consultation with the IRT, will typically approve the award of credits according to the schedule in Table D-2, below. Credits may not be awarded sooner than specified in Table D-2, except where otherwise noted or in extraordinary situations with the written approval of the Corps and Ecology, in consultation with the IRT. If the Bank is not able to meet a particular performance standard by the year indicated in Table D-2, the Sponsor may submit documentation of successful satisfaction of that performance standard during a subsequent year, and the Corps and Ecology, in consultation with the IRT, will give full consideration to the award of appropriate credits for sale, use, or transfer without reduction or other penalty.

C. The Corps and Ecology may, at their discretion following consultation with the IRT, award partial credit for partial accomplishment of a performance standard. In the event a specific performance standard is not met, but the IRT feels that the site is progressing satisfactorily, the Corps and Ecology may at their discretion following consultation with the IRT, award credits.

D. Once a credit is awarded, the Bank may sell, use, or otherwise transfer that credit at any time, subject to the provisions of this Instrument.

E. If the institution of an adaptive management or remedial action plan as described in Section F.4 of Appendix F causes delay in the achievement of a performance standard, the timeline for achievement of each subsequent milestone for that performance standard will be deferred for a like interval, unless otherwise specifically approved by the Corps and Ecology, following consultation with the IRT. The Corps and Ecology, following consultation with the IRT and with the Sponsor, will determine what remedial actions are necessary to correct the situation, pursuant to Article IV.H. and Section F.4, and direct their performance prior to the award of any additional mitigation credits.



**Table D-2: Credit Release Schedule**

Potential credits to be released – 11.77	Pre-Construction Credits	Year 0 Credits	Year 1 Credits	Year 3 Credits	Year 5 Credits	Year 7 Credits	Year 10 Credits	Total Credits
<b>Objective 1. Administrative Protections</b>								
1a. MBI Signed	1.20							1.20
1b. CE Recorded	1.20							1.20
1c. Enact City Ordinance	1.20							1.20
1d. Long-Term M & M Fund and Escrow Agreement Established	1.20							1.20
<b>Objective 2. Remove Garbage and Decommission Trails</b>								
2a. Garbage Removed and Trails Decommissioned– As-built		1.00						1.00
2b. Garbage Removal Years 1, 3, 5, 7, 10.			0.15	0.15	0.15	0.15	0.15	0.75
2c. Trail Maintenance			0.15	0.15	0.15	0.15	0.15	0.75
<b>Objective 3. Vegetation</b>								
3a. Plantings Installed – As-built		1.00						1.00
3b. Planted Tree and Shrub Survival Years 1,3,5,7,10			0.25	0.25	0.25	0.25	0.23	1.23
3c. & 3d. Invasive Species Control Years 1,3,5,7,10			0.25	0.25	0.25	0.25	0.24	1.24
<b>Objective 4. Signage</b>								
4a. Signs & Nest Boxes Installed – As-built		1.00						1.00
<b>Total Credits Available in the Period</b>	<b>4.80</b>	<b>3.00</b>	<b>0.80</b>	<b>0.80</b>	<b>0.80</b>	<b>0.80</b>	<b>0.77</b>	<b>11.77</b>
<b>Percent</b>	<b>40.8%</b>	<b>25.4%</b>	<b>6.7%</b>	<b>6.7%</b>	<b>6.7%</b>	<b>6.7%</b>	<b>7.0%</b>	
<b>Cumulative Percent</b>	<b>40.8%</b>	<b>66.2%</b>	<b>72.9%</b>	<b>79.6%</b>	<b>86.3%</b>	<b>93%</b>	<b>100%</b>	

\* Year 0 is the calendar year during which construction is completed and the as-built drawings are submitted by the Sponsor and approved by the IRT. Year 1 is the first year of site monitoring, following approval of the as-built drawings.

## APPENDIX E PROCEDURES FOR USE OF MITIGATION BANK CREDITS AND DEBIT USE

### E.1 Service Area

A. The Service Area for the Bank includes both the Ocean Shores and the Westport peninsulas. The western boundary of the Service Area is the line 200' east of the Ordinary High Water Mark of the Pacific Ocean from Copalis Beach, WA south to Heather, WA (**Figure E-1**). The northern extent of the Service Area extends from Copalis Beach, WA at Benner Road, east to the intersection with SR 109, then following SR 109 south to Hogans Corner to the intersection with Hale Avenue. Extending south along Hale Ave to Shamrock Way, and continuing south along Highway 115 following the contour of the bay encompassing the Ocean Shores peninsula, with the exceptions noted below (**Figure E-2**).

The southern extent of the Service Area extends from Heather, WA at Udell-Hanson Road, east to Smith Anderson Road, and following the topographic break north along Smith Anderson Road. At the terminus of Smith Anderson Road the Service Area boundary continues to follow the topographic break north to Hunt Club Road, to the intersection with Highway 105, then following the contour of Grays Harbor bay encompassing the City of Westport, with the exceptions noted below (**Figure E-3**).

The Service Area exclude areas considered tidal, diked tidal, and estuarine wetlands.

**Table E-1: Extent of the Weatherwax Mitigation Bank Service Area**

Northern Limits	Northern Boundary of Copalis Beach, WA at Benner Road.
Western Limits	200ft east of the Ordinary High Water Mark of the Pacific Ocean <sup>1</sup>
Southern Limits	Southern boundary of Heather, WA at Udell-Hanson Road
Eastern Limits	Copalis Beach, WA south to Hogans Corner, continuing south along Highway 115, following the contour of the bay encompassing the Ocean Shores peninsula. Heather, WA north along Smith Anderson Rd, following the topographic break to Hunt Club Rd, north to the intersection with Highway 105, following the contour of the bay encompassing the City of Westport.

The Bank site service area was selected based on its topography (landform), soil types, as well as groundwater and surface-water flow patterns in relationship to aquatic ecosystems (Hruby 2009). The Service Area for the Bank extends to the northern and central extent of the general soil type (4) Yaquina-Netarts-Duneland mapped within the coastal plains from Copalis to Tokeland as indicated on the Grays Harbor Soil Survey Map (Pringle 1986). The environs of the mapped general soil type (4) Yaquina-Netarts-Duneland that encompass the coastal plains from Copalis to Tokeland are geomorphologically related and are characterized as a landscape of current and historic interdunal formations. The interdunal formations that comprise Yaquina-Netarts-Duneland generally formed as series of north-south oriented dunes divided by depressions consisting of long narrow troughs and/or wide deflation plains where freshwater wetlands with analogous hydrogeomorphic characteristics frequently occur.

<sup>1</sup> This is the main regulatory boundary of the Shoreline Management Act on the outer coast

The Bank may be used to compensate for permitted impacts that are located within the service area if specifically approved by the appropriate agencies requiring mitigation.

B. The Bank may be used to compensate for permitted impacts outside the service area if specifically approved by the appropriate agencies requiring mitigation and the Corps and Ecology, following consultation with the IRT, provided that such mitigation would be practicable and environmentally preferable to other mitigation alternatives. As such, out-of-service-area impacts will only be allowed in special circumstances, which will be evaluated on a case-by-case basis. Examples include projects that span multiple basins, such as transportation and utility corridors and pipelines, and settlement of enforcement actions.

## E.2 Credit-Debit Ratios

A. Bank credits may be used, subject to the approval of the regulatory agencies with jurisdiction over the impact, to compensate for authorized permanent or temporary impacts, as well as to resolve enforcement or permit compliance actions such as replacing previously implemented project-specific mitigation that has partially or completely failed.

B. Each credit withdrawal transaction agreement that is associated with a permit must indicate the permit number of the impacting project and the number of credits transacted, and must expressly specify that the Sponsor, and its successors and assigns, assume responsibility for accomplishment and maintenance of the permittee's compensatory mitigation requirements associated with the impacting project, upon completion of the credit transaction.

C. The following table depicts the approximate number of Bank credits typically required by the IRT agencies to compensate for each unit of permanent loss of listed aquatic resource type and functional level. The actual number of Bank credits required to compensate for an adverse impact to aquatic resources in any particular situation depends on many factors (such as whether the impact is permanent or temporary) and will be determined on a case-by-case basis by the regulatory agency(ies) authorizing the impact. The wetland functional categories are based on the *Washington State Wetland Rating System for Western Washington, revised* (Ecology Publication # 04-06-025). Units of loss are measured in acres for wetland and buffer impacts and may be measured in either acres or linear feet for stream impacts. Due to the variety and typically high level of functioning of both streams and Category I wetlands, compensation for impacts to these resources by Bank credits will be determined by the regulatory agencies on a case-by-case basis.

**Table E-2: Typical Credit-Debit Ratios**

Resource Impact	Bank Credits: Impact Acreage
Wetland, Category I	Case-by-Case
Wetland, Category II	1.2:1
Wetland, Category III	1:1
Wetland, Category IV	0.85:1
Critical Area Buffer	case-by-case

### **E.3 Procedures for Use of Mitigation Bank Credits**

A. Use of Mitigation Bank Credits: Public and private proponents of activities regulated under Sections 401 and 404 of the Clean Water Act (33 U.S. Code §§ 1341, 1344), Section 10 of the Rivers and Harbors Act of 1899 (33 U.S. Code § 403), Washington State Water Pollution Control Act (Chapter 90.48, RCW), Shoreline Management Act (RCW 90.58), Growth Management Act (RCW 36.70A), Hydraulic Code (RCW 75.20), and other Federal, State, and local authorities may be eligible to use the Bank as mitigation for unavoidable impacts. The Bank will be eligible to serve public and private end users by providing advance compensatory mitigation for authorized impacts to regulated areas that require mitigation to settle enforcement claims. The Bank is intended to provide replacement of lost functions and values including: wetlands, endangered species habitat, and upland/buffer habitat.

B. An applicant seeking a permit for a project with impacts to the aquatic environment within the service area must generally obtain the approval of each regulatory agency with jurisdiction over that project in order to use the Bank as a source of compensatory mitigation. To receive approval to use the Bank, the applicant must demonstrate to the satisfaction of the pertinent regulatory agencies that the project complies with all applicable requirements pertaining to alternatives and mitigation sequencing and that purchasing credits from the Bank for compensatory mitigation would be in the best interest of the environment. Specifically, a permit applicant must generally be able to demonstrate to the satisfaction of the involved regulatory agencies that:

- (1) There is no practicable alternative to adversely impacting the water body, critical area, buffer, or other regulated area; and
- (2) All appropriate and practicable measures to minimize adverse impacts to the aquatic ecosystem have been considered and included in the project.

It is solely the determination of the agency(ies) permitting the project with adverse impacts as to whether a proposed use of Bank credits within the service area is appropriate and environmentally preferable to other mitigation alternatives.

C. Local jurisdictions may establish policies where the best management practices for small impacts to low value, isolated wetlands are for the permittee to go directly to the Bank for credit. Upon receiving permission to utilize credits from the Bank the permittee must contact the Sponsor to ensure that credits are available. Upon completion of the transaction, the Sponsor will inform the permitting agencies of each completed transaction, through email or a letter with an attached copy of the accounting ledger.

D. Other types of credit users may include, but are not necessarily limited to, purchases made that will not be associated with a particular project or impact (i.e., “good will” purchase), purchases made by natural resource stewards resulting from expenditures from in-lieu-fees (or similar type funds), and other conservation purposes.

E. The Sponsor may use the Bank site to provide compensatory mitigation to offset impacts to environmental elements other than aquatic resources. Such use shall result in no physical changes to the Bank site unless approved by the Corps and Ecology, in consultation with the IRT. The Sponsor must obtain approval from the Corps and Ecology, following consultation with the IRT, prior to

establishing currencies other than the wetland mitigation credits that are established by Appendix D of this Instrument. The agencies that regulate those specific environmental elements are responsible for establishing the value of the currency and release schedules, and determining the appropriateness of using the Bank as compensatory mitigation for impacts to those elements. The Corps and Ecology, in consultation with the IRT, will determine how withdrawal of those currencies will affect the amount of potential wetland mitigation credits remaining. The Sponsor shall record the award and use of all currencies on the Bank ledger and otherwise follow the procedures as outlined in Appendix E.4. Use of the Bank for compensatory mitigation for other environmental elements shall not conflict with the provisions of this Instrument.

#### **E.4 Accounting Procedures**

A. The Sponsor shall establish and maintain for inspection and reporting purposes a ledger of all credits that are awarded through the achievement of specified performance standards, as well as credits that are sold, used, or transferred. The Sponsor will record each credit withdrawal transaction that receives a permit with the Grays Harbor County Auditor, and submit a copy of the recorded transaction to each member of the IRT within 30 days from the stamped registration date.

B. The ledger must follow the current ledger template approved by the Corps and Ecology. The following information, at a minimum, will be recorded in the ledger for each transaction:

- (1) Date of transaction.
- (2) Number of credits transacted.
- (3) For credits awarded, reference the performance standard(s) to which the awarded credits correspond.
- (4) For credit sales/use/transfers, include the name, address, and telephone number of purchaser/user/transferee and include all the following information that applies: permit number(s), permit issuance date, and name of the regulatory agency(ies) issuing permits; location of the project for which the credits are being purchased/used/transferred; the size of the impacts; and a brief description of the project impacts requiring compensatory mitigation (e.g., nature and quality of aquatic resources affected).
- (5) For credits withdrawn from the ledger for reasons other than credit sale/use/transfer, include the specific reason for withdrawal.
- (6) Bank credit balance after the award or transaction.

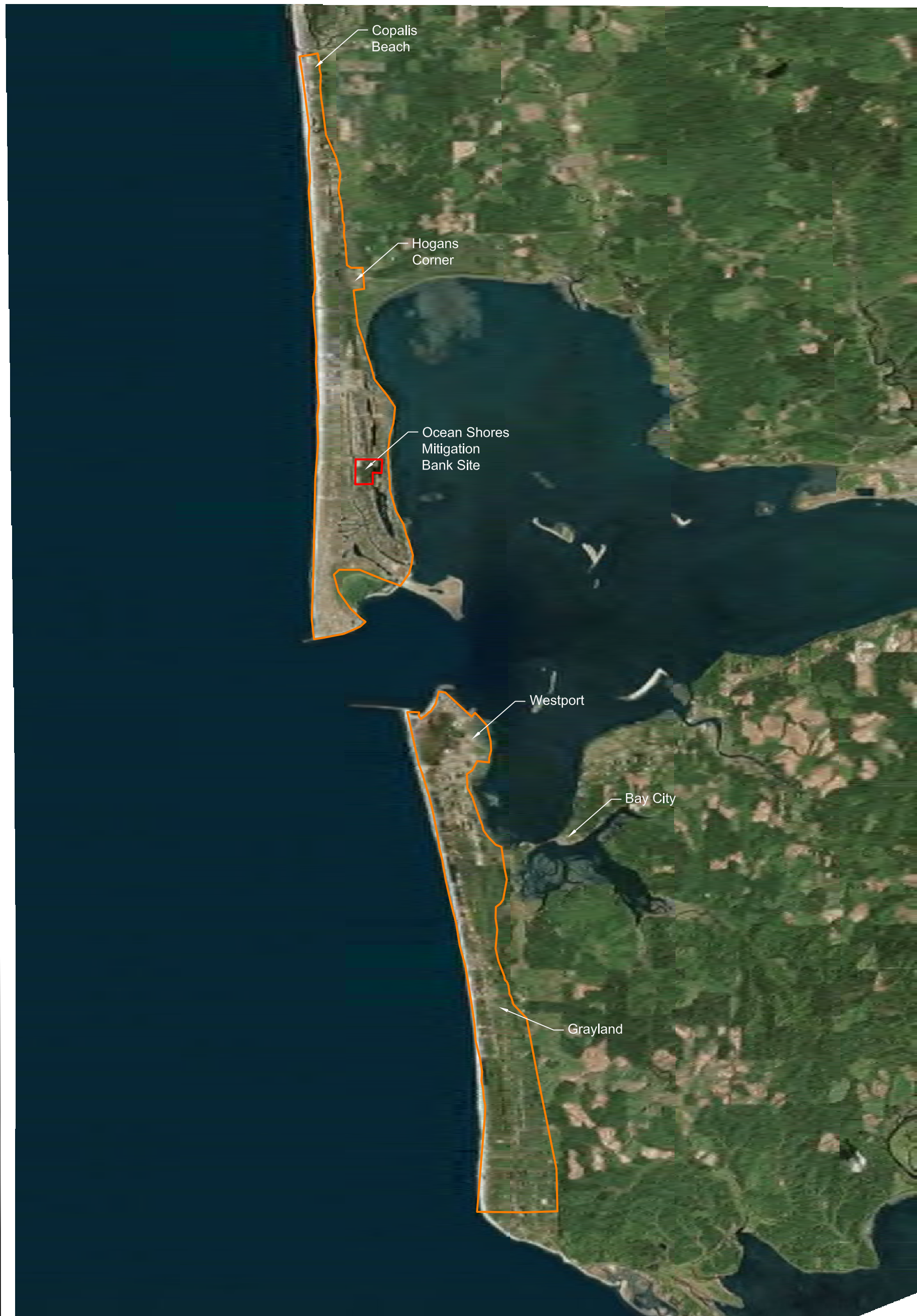
C. The Sponsor will provide an updated Bank ledger to each member of the IRT each time credits are awarded, sold, used, or otherwise transferred. This must be provided within 30 days of any credit transaction. The Sponsor will also submit an annual ledger by February 1 of each year. The annual ledger must show a cumulative tabulation of all credit transactions at the Bank through December 31.

This ledger will be submitted in conjunction with the monitoring reports until (1) all credits have been awarded and sold, used, or otherwise transferred; or (2) the Corps and Ecology, in consultation with the IRT, have accepted the Sponsor's written request to permanently cease all banking activity.

## References

- Hruby, Thomas, Kim Harper, and Stephen Stanley. 2009. *Selecting Wetland Mitigation Sites Using a Watershed Approach*. Washington State Department of Ecology. Publication #09-06-032. Olympia, Washington.
- Hruby. T. 2006. *Wetland Rating System for Western Washington (Revised)*. Washington State Department of Ecology. Publication #04-06-025. Olympia, Washington.
- Pringle, Russell F. 1986. *Soil Survey of Grays Harbor County Area, Pacific County, and Wahkiakum County, Washington*. U.S.D.A. Soil Conservation Service.





**NOTE(S):**

1. Aerial photograph (2015) provided by Bing

**LEGEND:**

Service Area Boundary

Mitigation Bank Site Boundary



0 3 6

SCALE IN MILES

1" = 3 MI.



ECOLOGICAL LAND SERVICES, INC.

1157 3rd Ave., Suite 220  
Longview, WA 98632  
Phone: (360) 578-1371 Fax: (360) 414-9305

DATE: 11/17/15  
DWN: JKJ  
REQ. BY: SK  
PRJ. MGR: FN  
UPDATE: COS  
PROJECT NO: 1808.02

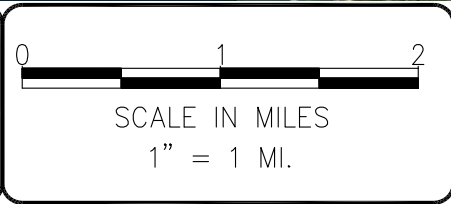
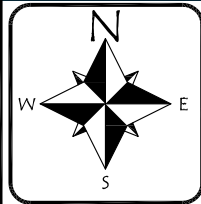
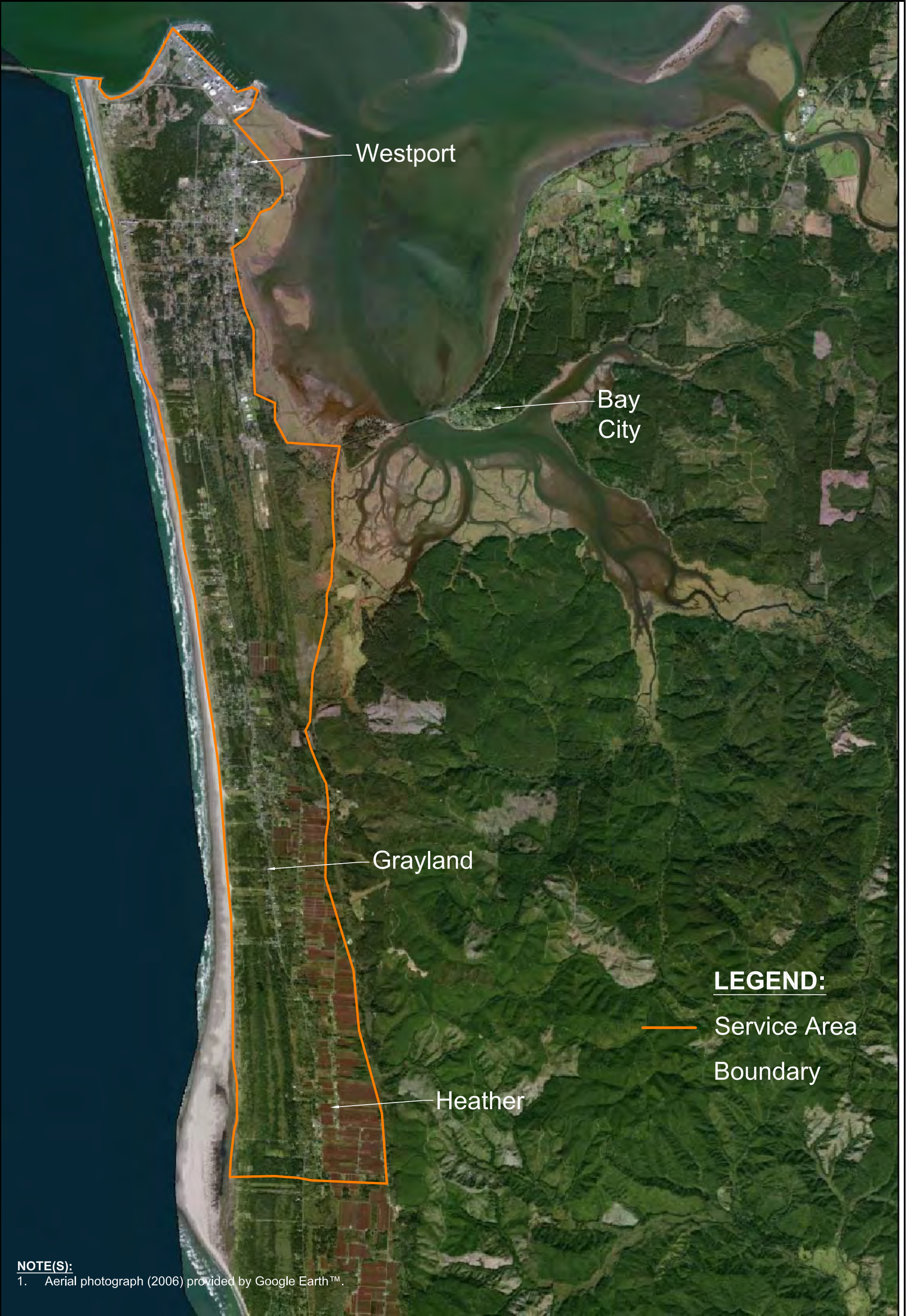
Figure E-1  
SERVICE AREA  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.





	<p>SCALE IN MILES 1" = 1 MI.</p>	<p>ECOLOGICAL LAND SERVICES, INC. 1157 3rd Ave., Suite 220 Longview, WA 98632 Phone: (360) 578-1371 Fax: (360) 414-9305</p>	<p>DATE: 8/31/15 DWN: BCB REQ. BY: SK PRJ. MGR: FN UPDATE: COS PROJECT NO: 1808.02</p>	<p>Figure E-2 SERVICE AREA - NORTHERN EXTENT Weatherwax Mitigation Bank City of Ocean Shores City of Ocean Shores, Grays Harbor County, Washington Sections 2 &amp; 11, Township 17N, Range 12W, W.M.</p>
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 ECOLOGICAL LAND SERVICES, INC.  
1157 3rd Ave., Suite 220  
Longview, WA 98632  
Phone: (360) 578-1371 Fax: (360) 414-9305

DATE: 12/3/15  
DWN: BCB  
REQ. BY: SK  
PRJ. MGR: FN  
UPDATE: COS  
PROJECT NO: 1808.02

Figure E-3  
SERVICE AREA - SOUTHERN EXTENT  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.



## **APPENDIX F**

### **ESTABLISHMENT PERIOD MONITORING, REPORTING, MAINTENANCE, AND REMEDIAL ACTION**

During the establishment period, the Sponsor shall monitor and report on the progress of the Bank toward achieving the goals, objectives, and performance standards established by these Appendices and take all actions directed by the Corps and/or Ecology, following consultation with the IRT, to remediate any consideration that prevents a component of the Bank from achieving the goals, objectives, and performance standards of the Bank. Procedures for as-built reports, monitoring reports, and remedial actions are described below.

#### **F.1 As-Built Reports**

As-built reports will be submitted to the IRT upon the completion of construction/enhancement activities to verify garbage removal, invasive-species removal, planting, installation of nest boxes, placement of mixed woody debris (MWD), plants and barriers along decommissioned trails and the installation of signs. At a minimum, the following components should be included in each of the as-built reports:

- Name and contact information for the parties responsible for the Bank preservation and enhancement areas including the Bank Sponsor, engineers, biologist, and wetland professional on site during implementation of enhancement activities.
- Ecology, Corps, and Local permit numbers
- Dates when activities began and ended such as invasive-plant removal, plant installation, MWD placement, and installation of nest boxes and signs
- Photographs of the site at as-built conditions taken from photo stations (panoramic photos are recommended)
- Description of any problems encountered and solutions implemented (with reasons for changes)
- List of any follow-up actions needed with a schedule
- 11x17 maps of the Bank site showing:
  - Installed planting scheme – quantities, densities, sizes, approximate locations, and plant-material sources
  - Locations of permanent photo stations
  - Date when the maps were produced and, if applicable, when information was collected
  - Sample plot and/or transect locations
  - Locations of MWD, plants and barriers along trails; nest boxes, and Bank protection signs

As-built reports will be submitted to each member of the IRT within 90 days of completing on-site enhancement work, and must demonstrate compliance with Appendix B and any modifications to the Bank development plan and design, approved by the Corps and Ecology prior to their implementation, following consultation with the IRT.

Permanent photo points will be established in Year 0 to document site conditions and to serve as benchmarks to determine the degree of success of the mitigation preservation and enhancement efforts during the establishment period. Photo point locations will be documented in the as-built report. A professional biologist will document Year 0 post-implementation conditions in the as-built report for invasive-species removal, plantings, garbage removal, MWD, plants and barriers along trails and nest box and sign installation. The report will also include photographs and as-built drawings. The as-built reports will also establish baseline conditions for future monitoring.

## **F.2 Establishment Period Monitoring**

A performance monitoring program will be implemented to determine the degree of success of the mitigation preservation and enhancement efforts during the establishment period. Monitoring will include periodic surveys and site evaluations to establish the foundation on which the Bank can demonstrate to the IRT that pertinent performance standards have been achieved and continue to be maintained. Monitoring will include observations and total survival counts of planted native species and percent cover of non-native invasive and/or nuisance species, to assess encroachment such as garbage dumping and vandalism. Monitoring will also include observations of herbivory. The monitoring plan describes the performance standards as certified in this Mitigation Banking Instrument, the field methods and procedures that will track attainment of the performance standards, and the procedures for attaining quality assurance and quality control. The monitoring plan is designed to be as simple and quantitative as possible. The monitoring efforts will evaluate and document the success of the performance standards; the performance standards dictate the data collection and analysis procedures defined in this plan. All monitoring will be conducted by qualified personnel.

### **F.2.1 Overview of Monitoring and Reporting Requirements**

As-built and on-going monitoring requirements specific to each performance standard (see Section C.2 of Appendix C) are summarized below.

#### **Ecological Goal #1: Protect Aquatic Ecosystem Functions**

- As-built report that includes photographs showing before and after conditions in areas of garbage removal and decommissioned trails. Garbage removal areas and MWD, plants and barrier locations will be drawn on a site map to show where garbage was removed (Performance Standard 2a).
- Submit monitoring reports documenting the absence of garbage in Years 1, 3, 5, 7, and 10 (Performance Standard 2b).
- Submit monitoring reports documenting presence of MWD, plants and barriers on decommissioned trails and actions taken to discourage trail use and the development of additional trails (Performance Standard 2c)
- Submit as-built drawings and photographs showing completed sign and nest box installation (Performance Standard 4a).

**Ecological Goal #2: Enhance approximately 0.69 acres of the Point uplands and approximately 0.11 acres of the 100-foot western buffer area, and control invasive vegetation on the Bank site.**

- Submit as-built report documenting planted areas (Performance Standard 3a).
- Submit monitoring reports documenting survival of planted trees and shrubs in Years 1, 3, 5, 7, and 10 (Performance Standard 3b).
- Submit monitoring reports documenting percent cover of non-native invasive species in the Bank site in Years 1, 3, 5, 7, and 10 (Performance Standard 3c).
- Annual inventory for aggressive non-native invasive species including Japanese knotweed, Purple loosestrife, English Ivy, and Brazilian elodea. Presence and eradication reported in monitoring reports for Years 1, 3, 5, 7, and 10 (Performance standard 3d).

**F.2.2 Monitoring Protocol**

Formal monitoring will include both qualitative and quantitative monitoring to address fulfillment of the Bank objectives and performance standards (see Appendix C). Formal monitoring will occur throughout Years 1, 3, 5, 7, and 10 according to the monitoring schedule and sampling protocol described below.

Informal monitoring provides a general overview of site progress, and will be conducted during years for which there is no formal quantitative monitoring reporting requirement to ensure that the site appears to be progressing towards meeting performance standards. Specifically, a qualitative visual inspection of the Bank will be conducted during periodic site visits to identify concerns associated with meeting Bank objectives and performance standards, if any. Informal monitoring will usually include observation notes and site photos. Informal monitoring will be the only monitoring method during the years for which there are no performance standards, although it will also be employed during years of formal monitoring. Informal monitoring will consist of visual observation and documentation of garbage, and existing and decommissioned trails, signs of trespass/vandalism, plant condition, and presence of invasive species. Informal monitoring observations will be documented in the formal monitoring reports in Years 1, 3, 5, 7, and 10.

**F.2.3 Vegetation**

Approximately 0.69 acres of the Point uplands and approximately 0.11 acres of the 100-foot western buffer area will be planted. The locations of these planting areas will be identified by the use of a Global Positioning System (GPS) and placed on a map.

To assess the development of the planted species, vegetation monitoring will measure the following:

- Documentation of beneficial recruits.
- Percent survival of the trees and shrubs planted within the Point and western buffer enhancement areas and overall plant vigor, as observed in leader growth of tree species, coloration of foliage, strength of root system at base of trees and shrubs, stoutness of tree and shrub stems, and straightness of tree stems, and overall appearance.
- Quantitatively determine percent survival by providing specific plant counts of the trees and shrubs planted within the Point and western buffer enhancement areas.



- Change in the planted community over time (photographs from permanent photo points and panoramic view(s)).

Formal and informal monitoring of the enhancement area will occur over the 10-year monitoring period. Formal monitoring and monitoring reports will be completed in Years 1, 3, 5, 7, and 10. Successful mitigation will be measured by attainment of the performance standards described in Appendix C. Experience in the field may indicate that other performance monitoring methods would provide more useful information; the regulatory agencies must approve in advance any changes in the means of gathering or reporting performance data.

Fifteen permanent photo point locations will be established throughout the site (**Figure F-1, Monitoring Transects and Photo Points**) and permanently marked with metal posts. Photo point locations will be placed on the as-built and included in the monitoring reports. Each trail will have a photo point(s) which will be documented in the as-built report.

Non-native invasive species presence and percent cover will be documented in monitoring reports as recorded for Years 1, 3, 5, 7, and 10. Invasive species will be monitored utilizing transects ranging in length up to 500 feet to 600 feet as depicted on **Figure F-1, Monitoring Transects and Photo Points**. These transect locations were selected to obtain a broad spectrum of the various plant communities on the site, while avoiding impacts to mature/old growth vegetation by confining transects in those areas to maintained trails or the existing powerline corridor. Percent cover of invasive species will be estimated visually within 5 feet on each side of the transect (10 feet total) along the entire length of the transect. All areas of invasive species (other than zero-tolerance species) measuring at least 25 square feet in size (approximately 5-feet by 5-feet) will be mapped and documented. Noxious weed control measures used to maintain percent cover standards or baseline conditions for invasive non-natives may include mechanical vegetation control and herbicide treatments.

In addition to the established transects, the Lacustrine fringe along the western and eastern parcels and the Point will be either walked or observed by boat and planted enhancement areas will be walked to observe for invasive species presence in Years 1, 3, 5, 7, and 10. In years 5 and 10 a walkthrough of the wetland mosaic within the western portion of the site will be conducted to qualitatively observe and document invasive species presence. Photos will be taken to document findings.

There shall be zero tolerance for colonization of Japanese knotweed (and hybrids), purple loosestrife, and English ivy and zero tolerance for Brazilian elodea onsite. Presence and eradication of these species must be noted in monitoring reports for Years 1, 3, 5, 7, and 10. Annual surveys for these species shall occur by walking the established transects in Years 1 through 10 and walking through the wetland mosaic in Years 5 and 10. The Lacustrine fringe along the western and eastern parcels and the Point will be either walked or observed by boat and the planted enhancement area on the point will be walked to observe for these species presence in Years 1 through 10. Eradication of these zero tolerance species will consist of stem-injection of herbicide for Japanese knotweed, and mechanical removal for purple loosestrife, English ivy and Brazilian elodea.

On-going monitoring is crucial to detecting invasive aquatic plant species before establishment of large populations that require large-scale chemical or mechanical control take hold. Management

of invasive aquatic plant species within the Bank site's Lacustrine wetlands will involve annual monitoring and as-needed manual removal of individual/very small populations of the most problematic species within the system, Brazilian elodea (*Egeria densa*). If small pioneering infestations of *Egeria* are detected within the Bank site's Lacustrine wetlands, cultural control options such as opaque bottom barriers can be implemented as an alternative to chemical control. However, manual (and mechanical) control has to be carefully performed as introduced *Egeria*'s primary mode of reproduction is through fragmentation. Chemical control of invasive aquatic plant species within the bank boundary cannot occur unless specifically approved by the IRT.

#### **F.2.4 Garbage Removal**

Monitoring for the presence of garbage will include walking the entire site, including the length of the site boundary, buffers, Lake Fringe, and trail system. All garbage the size of an 8-ounce soup can or larger will be removed. If garbage is found, it will be removed as it is discovered; however, if equipment or other personnel are required, garbage will be removed during maintenance activities.

#### **F.2.5 Trail System**

The preservation of the 46.11 acres of Wetland Mosaic and 32.60 acres of Mature/Old Growth will include the decommissioning of 2,749 linear feet of trail throughout the Western Property (**Figure A-9, Trail System Map**). Decommissioned trails will be enhanced with randomly placed clusters of mixed woody debris (MWD), plants and barriers at trail closure junctions to deter continued trail use and provide additional habitat structure and function. The trail closures and placement of MWD and barriers will be monitored by staff and volunteers to ensure they remain in place and the public is no longer accessing closed trails. (**Figure B-4 MWD, Native Plants and Nest Box Specifications; Figure B-5, Barriers and Planting Locations**).

#### **F.2.6 Signs**

Monitoring will include checking the condition and placement of signs by walking the length of the entire Bank site boundary. Sign placement is shown on **Figure B-3, MWD and Sign Location Map**; sign text specifications are shown on **Figure B-6, Sign Specifications**. Signs will be placed as follows:

- “No Shoreline Access” signs should be posted every 300 feet along the Duck Lake shoreline.
- “No Trespassing or Littering” signs should be posted on alternating lot line intersections on the east and south Bank boundary.
- “No Trespassing or Littering” signs should be posted along the west and north Bank boundary every 300 feet where fences are present and every 100 feet where there is no fence.
- North and south trailheads should be posted indicating no access to the wetland mosaic area.

Findings and repairs or replacements will be documented in monitoring reports.

### **F.3 Reports**

The Sponsor will prepare and submit to each member of the IRT monitoring reports in Years 1, 3, 5, 7 and 10, that will inform the IRT of the status of Bank establishment and operation. These reports will document Bank conditions and provide the supporting information required to document the attainment of goals, objectives, and performance standards as a basis for a decision whether to award credits. Monitoring reports for years 1, 3, 5, 7, and 10 will be submitted by February 1 of the following year, with a copy for each member of the IRT. Each monitoring report will contain the following information:

A. An overview of the current ecological condition of the Bank, including a survey of the vegetative communities, effectiveness of the enhancement activities accomplished to date, and progress of the Bank in achieving the specific performance standards of the Bank. The survey will also include observation of existing and decommissioned trails. To provide data for evaluating progress towards achievement of performance standards, photo points will be established at selected locations within the Bank to evaluate relevant performance standards. Experience in the field may indicate that other performance monitoring methods would provide more useful information; the Corps and Ecology, in consultation with the IRT must approve in advance any changes in the means of gathering or reporting performance data. All monitoring will be conducted by qualified personnel. In Year 10, a current aerial photo of the Bank site will be included in the monitoring report.

B. A detailed discussion about the likely cause and impact of any setback or failure that occurred and recommendations for future actions and strategies that might resolve those problems.

C. Pertinent additional information on such aspects of the Bank as hydrology, soils, vegetation, fish and wildlife use of the area, recreational and scientific use of the Bank, and natural events such as disease, wildfire, and flooding that occurred.

D. Explanations of the need for any contingency or remedial measures, and detailed proposals for their implementation.

E. Photographs of the Bank taken from permanent locations that are accurately identified on the as-built drawings. The photographs are intended to document the progress of each component of the Bank, as well as the Bank in general, toward achieving the objectives and performance standards of the Bank. Such photo-monitoring will include general vantage points around the margin of the Bank, vantage points within the Bank, and at specific monitoring locations such as sampling points.

**Table F-1 Summary of Annual Monitoring Tasks**

Bank Year	Report Name	Performance Standard	Monitoring Task	Monitoring Area	Expected Site Visits
Year 0	As-built Report	2a	Document garbage occurrence and removal Document placement of MWD, plants and barriers along decommissioned trails	Entire site Decommissioned Trails	Within 90 days of completion
		3a	Submit planting as-built information	Point & Western Buffer Enhancement Planting Areas	Within 90 days of completion
		4a	Submit sign installation as-built information Submit nest box installation as-built information	Trail Heads, Shoreline & Bank Boundary Enhancement Areas	Within 90 days of completion
Years 1, 3, 5, 7 & 10	Monitoring Report	2b	Document absence of garbage	Entire site	One time annually, June-September
		2c	Document MWD, native plants and barriers along decommissioned trails; presence of newly created trails and actions taken to discourage use	Western Parcel	One time in Years 1, 3, 5, 7, & 10, June-September
		3b	Collect tree & shrub survival data in planted areas	Point & Western Buffer Enhancement Planting Areas	One time in Years 1, 3, 5, 7, & 10, June-September
		3c	Document cover of invasive species	Established transects, Lacustrine Fringe, and planted enhancement areas in Years 1, 3, 5, 7 & 10 and walking through the wetland mosaic in Years 5 & 10	One time in Years 1, 3, 5, 7, & 10, June-September
		3d	Mapping and eradication of zero-tolerance invasive species	Established transects, Lacustrine Fringe, and planted enhancement areas in Years 1 through 10 and walking through the wetland mosaic in Years 5 & 10	One time annually, June-September

#### **F.4 Remedial Action During the Establishment Period of the Bank**

In the event that one or more components of the Bank do not achieve performance standards or comply with any other requirement of this Instrument, the following sequence of remedial actions will be taken.

A. If the monitoring reports, or inspection by representatives of the IRT agencies, indicate persistent failure to achieve and maintain the prescribed performance standards, the Sponsor will propose adaptive management actions to correct the shortcomings. A thorough analysis of vegetation and wetland monitoring data may result in the identification of other factors, not identified in the performance standards or monitoring data, causing the project to fall short of its objectives. The Corps and/or Ecology, following consultation with the IRT and the Sponsor, may also direct adaptive management actions if the Corps and/or Ecology identify a need for corrective action and no adaptive management plan acceptable to the IRT has been submitted within a

reasonable period of time. The adaptive management plan shall specify the nature of further examination of areas for potential causes of failure and/or corrective action to be conducted, the schedule of completion for those activities, and a monitoring plan for assessing the effectiveness of the corrective action. The objective of the adaptive management plan shall be to attain the originally prescribed Bank objectives, either through achieving the original performance standards or through new standards subsequently developed based on evaluation of the Bank site as it matures and is assessed. The Sponsor shall also implement all mitigation that the Corps and/or Ecology, in consultation with the IRT, determine is reasonably necessary to compensate for those authorized impacts to the aquatic environment that have not been successfully redressed by the Bank pursuant to the requirements of this Instrument. If modified or replacement performance standards are proposed, the Sponsor may not initiate activities designed to achieve those replacement standards until those performance standards are approved by the Corps or Ecology, following consultation with the IRT. During the period that a specific component of the Bank is out of compliance, the Corps and/or Ecology, following consultation with the IRT may direct that credits generated by that Bank component may not be sold, used, or otherwise transferred.

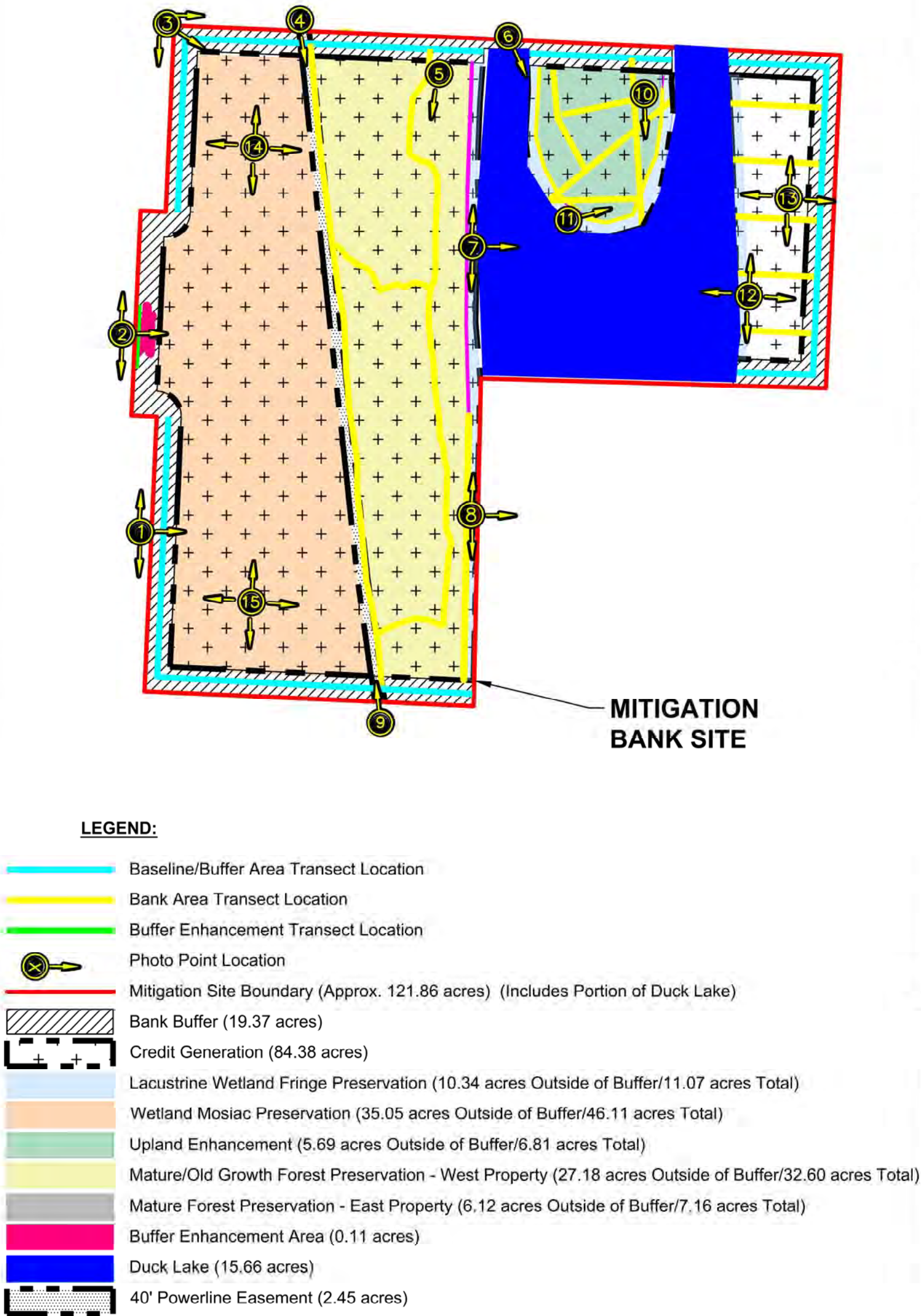
B. If remedial actions taken by the Sponsor under the provisions of the preceding paragraph do not bring that performance standard of the Bank into compliance with the requirements of this Instrument, including any approved changes to the Instrument, the Sponsor may request approval to discontinue efforts to achieve one or more performance standards for the Bank. If the Corps and Ecology, following consultation with the IRT, approve of the proposal to discontinue efforts to achieve one or more performance standards, they need not be accomplished but no additional credits may be awarded for those performance standard(s). At the discretion of the Corps and Ecology, following consultation with the IRT, the Sponsor may also be released from future maintenance and monitoring obligations for those performance standard(s), provided that releasing the Sponsor from those obligations does not adversely affect the remainder of the Bank, or affect credits already sold, used, or transferred to date.

C. If the Corps and Ecology, following consultation with the IRT, determine that the failure of one or more performance standards of the Bank to comply with the requirements of this Instrument adversely affects the ability of the Bank to achieve its goals or objectives, or if the Sponsor does not make a reasonable effort to bring the Bank into compliance with this Instrument, the Corps and Ecology, following consultation with the IRT, may terminate this Instrument and the operation of the Bank pursuant to Article IV.J.

## **F.5 Maintenance During the Establishment Period of the Bank**

General maintenance will be performed throughout the year to address conditions that may limit the success of the Bank and attainment of performance standards and objectives. The Sponsor is responsible for all site maintenance activities throughout the establishment period of the Bank. Maintenance activities will include, but are not limited to, vegetative maintenance (including replanting, repair of any areas subject to erosion, weed control around plantings, control of invasive species, and control and discouragement of voles, beaver and deer foraging on plants), and general maintenance (including sign replacement, garbage removal, and repair of decommissioned trails or newly created unauthorized trails).





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SCALE IN FEET  
1" = 600'

ECOLOGICAL LAND SERVICES, INC.  
1157 3rd Ave., Suite 220  
Longview, WA 98632  
Phone: (360) 578-1371 Fax: (360) 414-9305

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Figure F-1  
MONITORING TRANSECTS & PHOTO POINTS  
Weatherwax Mitigation Bank  
City of Ocean Shores  
City of Ocean Shores, Grays Harbor County, Washington  
Sections 2 & 11, Township 17N, Range 12W, W.M.



## **APPENDIX G**

### **LONG-TERM PROTECTION AND MANAGEMENT**

#### **G.1 Conservation Easement**

A. The Sponsor will ensure, pursuant to Article III.D. of this Instrument, that an appropriate conservation easement is granted and recorded dedicating in perpetuity the property constituting the Bank, that is to be preserved or enhanced for credit. The conservation easement must be approved by the Corps and Ecology, following consultation with the IRT, and shall be recorded with the Grays Harbor County Auditor. A copy of the recorded easement shall be provided to all members of the IRT. The conservation easement shall reflect that it may not be removed, modified, or transferred without written approval of the Corps and Ecology, in consultation with the IRT. The Corps and Ecology may consider any alteration or rescission of the conservation easement a default of the Sponsor's obligations under this Instrument and may institute appropriate action pursuant to Article IV.J. The Sponsor shall provide no less than 60 days advance written notice to the IRT of any transfer of fee title or any portion of the ownership interest in the Bank real property to another party. Conveyance of any interest in the property shall be subject to the conservation easement. Use prohibitions reflected in the easement will preclude the Bank site from being used for activities that would be incompatible with the establishment and operation of the Bank. All restrictions shall be granted in perpetuity without encumbrances or other reservations, except those encumbrances or reservations approved by the Corps and Ecology, in consultation with the IRT, and not adversely affecting the ecological viability of the Bank. Any portion of the Bank site not encumbered by the conservation easement will not be credited for use in the Bank.

B. The conservation easement shall provide that all structures, facilities, and improvements within the Bank, including roads, trails and fences, that are merely incidental to the functionality of the Bank site but are necessary to the Bank management and maintenance activities, shall be maintained by the Sponsor or its assignee for as long as it is necessary to serve the needs of long-term management and maintenance. All structures, facilities and improvements that directly and substantially contribute to the functionality of the Bank site will be included within the responsibilities delineated in the Long-Term Management and Maintenance Plan.

#### **G.2 Long-Term Management and Maintenance Plan**

A. The Sponsor is responsible for ensuring that a Long-Term Management and Maintenance Plan is developed and implemented to protect and maintain in perpetuity the aquatic functions and values of the Bank site. This plan must be approved by the Corps and Ecology, following consultation with the IRT, prior to the termination of the establishment period of the Bank. Once the establishment period of the Bank has terminated pursuant to Article IV.K of this Instrument, the Sponsor will assume responsibility for implementing that Long-Term Management and Maintenance Plan, as

provided in Article IV.M of this Instrument, unless the Sponsor assigns this responsibility pursuant to the provisions of Article IV.M and Section G.2.D of this Appendix.

B. To gain IRT approval, the Long-Term Management and Maintenance Plan will consist of enumerated objectives. The Bank will document that it is achieving each guideline or objective by submitting status reports to the IRT on a schedule approved by the IRT. A primary goal of the Bank is to preserve and enhance a self-sustaining natural aquatic system that achieves the intended level of aquatic ecosystem functionality with minimal human intervention, including long-term site maintenance. As such, natural changes to the vegetative community, other than changes caused by noxious weeds, that occur after all Bank performance standards have been met are not expected to require remediation.

C. The Long-Term Management and Maintenance Plan will include those elements necessary to provide long-term protection for the aquatic ecosystem and habitat resources of the Bank site. The specific elements of the Long-Term Management and Maintenance Plan must be tailored to meet the specific protection needs of the Bank site. At minimum, the IRT will likely find the following core elements to be necessary for inclusion in the Long-Term Management and Maintenance Plan. The particular characteristics of the Bank site at the end of the establishment period may necessitate including other elements not specified below, that are needed to protect the ecosystem resources present at the Bank.

- (1) Periodically patrol the Bank site for signs of trespass and vandalism. Maintenance will include reasonable actions to deter trespass and repair vandalized Bank features.
- (2) Monitor the condition of structural elements of the Bank site such as signage. The Long-Term Management and Maintenance Plan will include provisions to maintain and repair these improvements as necessary to achieve the objectives and functional performance goals of the Bank and comply with the provisions of the conservation easement. Improvements that are no longer needed to facilitate or protect the ecological function of the Bank site may be removed or abandoned if consistent with the terms and conditions of the conservation easement.
- (3) Inspect the site annually to locate and control noxious weeds listed on state and Grays Harbor County lists. Noxious weed control measures may include mechanical vegetation control, herbicide treatments, and temporary plantings. The IRT anticipates that this long-term control will involve identifying and eradicating a relatively small number of recurrences each year. In the event the Corps and Ecology, in consultation with the IRT, determine that the watershed within which the Bank is located becomes infested with these species in the future, so that their effective control on the Bank site is either no longer practicable or unreasonably expensive, the IRT will consider appropriate changes to the Long-Term Management and Maintenance Plan.

D. If the Sponsor elects to request the approval of the IRT to assign long-term management and maintenance to a Long-Term Steward pursuant to Article IV.M.2, the long-term management and maintenance assignment agreement will reflect that the assignee has (1) assumed the obligation, owed to the IRT, of accomplishing the Long-Term Management and Maintenance Plan; as well as (2) the legal responsibility for continued accomplishment and maintenance of the compensatory mitigation requirements associated with all impacting projects that satisfied their mitigation requirements through the application of Bank credits. The Corps and Ecology will also execute this assignment agreement. In exchange for the assignee's promise to achieve the Long-Term Management and Maintenance Plan, contemporaneously with the assignment of long-term management and maintenance responsibilities the Corps and Ecology will direct disbursement of the "full funding" amount specified in Article III.C.2.b of this Instrument from the LTMM Endowment Fund escrow account, pursuant to Article III.C.2.d of this Instrument. In the event the responsibility for executing the Long-Term Management and Maintenance Plan is not assigned to a third-party assignee, at the termination of the establishment period of the Bank the "full funding" amount specified in Article III.C.2.b of this Instrument will be disbursed from the LTMM Endowment Fund escrow account to the Sponsor.

## **APPENDIX H FINANCIAL ASSURANCES**

The Sponsor will institute and maintain financial assurances in accordance with the subsections immediately below.

### **H.1 Long-Term Management and Maintenance Endowment Fund**

A. In order to implement the LTMM Endowment Fund, prescribed in Article III.C.2 of this Instrument and underlying management and maintenance actions to be taken following completion of the establishment period of the Bank, the Sponsor will establish an escrow account in an accredited and Federally-insured financial institution, as follows.

B. The LTMM Endowment Fund escrow account will be incrementally funded until it is fully funded, as prescribed in Articles III.C.2.a and III.C.2.b of this Instrument. Once the LTMM Endowment Fund is fully funded, the Sponsor will be released from any further obligation to deposit a designated sum corresponding to each sale, use, or transfer of credits. The Sponsor will be permitted to accelerate contributions to the LTMM Endowment Fund, and by doing so, the Sponsor may defer subsequent contributions until the balance in the LTMM Endowment Fund no longer matches or exceeds the balance required by the computation in Article III.C.2.a. The Sponsor will provide to the IRT an annual account statement displaying a cumulative tabulation of all deposits into the LTMM Endowment Fund escrow account, with each deposit referencing the associated sale/use/transfer transaction, as well as the principal balance and total account balance, as of December 31 of the previous calendar year, by February 1 of each year. This statement will be submitted until (1) the LTMM Endowment Fund is fully funded or (2) until the IRT has accepted the Sponsor's written certification that it has terminated all banking activity.

C. The LTMM Endowment Fund escrow account may bear interest or other earnings. Any earnings generated by the escrow funds shall remain deposited with other escrow account funds. Earnings in excess of the full funding amount specified in Article III.C.2.b of this Instrument will be returned to the Sponsor at the time that the full funding amount is disbursed to the Long-Term Steward. The LTMM Endowment Fund account contents may be invested only in the following: an interest-bearing savings or passbook account, savings certificate, or certificate of deposit, held in each case by an institution that is insured by the Federal Deposit Insurance Corporation; alternatively, the LTMM Endowment Fund principal and earnings may be invested in direct obligations of the Government of the United States of America, in obligations of agencies or insurers that are guaranteed by the Government of the United States of America, or in a money market mutual fund consisting solely of such obligations.

D. The Sponsor will be responsible for all escrow agency and associated account fees, including account termination and final reconciliation costs, which may not be paid out of escrow account funds, or out of the interest or earnings generated thereon.



E. The terms of the escrow instructions will permit regular recurring deposits to the escrow principal as sales, use, or transfers of credits are made and designated sums corresponding to those sales, use, or transfers are deposited to the escrow account.